



**7th Annual Conference of the  
EuroMed Academy of Business**

**The Future of Entrepreneurship**

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## **The Future of Entrepreneurship**

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All full papers and abstracts submitted to the EMRBI Conference are subject to a peer reviewing process, using subject specialists selected because of their expert knowledge in the specific areas.

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## FOREWORD

The Annual Conference of the EuroMed Academy of Business aims to provide a unique international forum to facilitate the exchange of cutting-edge information through multidisciplinary presentations on examining and building new theory and business models for success through management innovation.

It is acknowledged that the conference has established itself as one of the major conferences of its kind in the EuroMed region, in terms of size, quality of content, and standing of attendees. Many of the papers presented contribute significantly to the business knowledge base.

The conference attracts hundreds of leading scholars from leading universities and principal executives and politicians from all over the world with the participation or intervention of Presidents, Prime Ministers, Ministers, Company CEOs, Presidents of Chambers, and other leading figures.

This year the conference attracted over 260 people from over 68 countries. Academics, practitioners, researchers and Doctoral students throughout the world submitted original papers for conference presentation and for publication in this Book. All papers and abstracts were double blind reviewed. The result of these efforts produced empirical, conceptual and methodological papers and abstracts involving all functional areas of business.



## ACKNOWLEDGEMENT

Many people and organizations are responsible for the successful outcome of the 7th Annual Conference of the EuroMed Academy of Business.

Special thanks go to the Conference Chair Dr Rotem Shneor, the Conference Organising Committee and the University of Agder, in Norway, for accomplishing an excellent job.

It is acknowledged that a successful conference could not be possible without the special co-operation and care of the Track Chairs and Reviewers for reviewing the many papers that were submitted to this conference. Special thanks to the Session Chairs and Paper Discussants for taking the extra time to make this conference a real success.

The last but not the least important acknowledgment goes to all those who submitted and presented their work at the conference. Their valuable research has highly contributed to the continuous success of the conference.

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# **BOOK OF CONFERENCE PROCEEDINGS**

## THE COOPERATIVE AS A FORM OF EVER-EVOLVING ENTERPRISE. TWO CASES OF COMMUNITY-BASED COOPERATIVE IN PUGLIA\*

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### ABSTRACT

Since its origin, the cooperative organisation of economic activity has been analysed on the basis of alternative scientific paradigms. The different approaches are due to the multiple perspectives suggested by a phenomenon multi-faceted in itself and that can be observed starting from different premises and purposes. Starting from these considerations, it seemed us appropriate to analyse the cooperative forms of enterprise focussing on the economic aspects of the production of goods and services, carried out in enterprises in which the management is entrusted to bodies different from those allocating the financial capital. Taking this into account, the first part of this work will focus on the definition of the cooperative forms of enterprise in general economic theory and in business theory. On the basis of the theoretical-conceptual profiles of reference, this study proposes an interpretation of the cooperative enterprise representing a reference model of the economic production that can at the same time increase both the economic development and the wealth of a whole community. With specific regard to this latter aspect, the second part of this work will focus on two cooperatives from Puglia, structured as community-based cooperatives, which tend to associate the pursuit of economic goals with the social and economic development of the local communities in which they operate. Through the illustration of two case studies (the community-based cooperatives Melpignano and Jemma) this paper aims to highlight the potential of community-based cooperatives for the support and the economic and social development of local area and its residents.

**Keywords:** *cooperative, community-based cooperative, local economic and social development*

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\* This work is the result of a common commitment, anyway primary research and development responsibility for particular paragraphs may be suggested as Francesco Giaccari first paragraph, Roberta Fasiello second and third paragraphs, Stefano Adamo fourth paragraph.

## **THEORETICAL PROFILES OF THE COOPERATIVE ENTERPRISE**

### *The economic theory of the cooperative enterprise*

The first studies on cooperation tried mostly to identify the fundamental purpose of the cooperative enterprise, comparing the economic substance of cooperative acting with its social relevance. Vermiglio (1990) offered a brief overview of the Italian economic theory, highlighting the initial polarization of the scientific debate that, if on one side rejected that cooperative enterprises could have economic purposes, on the other hand recognized their status of enterprises having the same economic objectives of capitalist firms.

The first position (Lorenzoni, 1936) reflected the ideological significance of the experience of cooperative enterprises, considered as an instrument of redemption of the underprivileged classes from the logic of finance capital. In fact, the cooperative enterprise allowed participants to carry out a joint economic activity in such a way that democracy and solidarity among equals was guaranteed. Cooperatives differed from capitalist enterprises as the finance capital had not a key role and the surplus was distributed on the basis of the activity performed within the cooperative by the single associates.

The second position recognized the cooperative enterprises the same economic character of capitalist enterprises (Pantaleoni, 1925). In fact, it was the economic motive that drove individuals to adhere to cooperative enterprises on the basis of self-interest and benefits in terms of reduced costs or increased remunerations. In line with this perspective that recognized both cooperatives and companies the same economic status, there was the position of those who, while interpreting cooperatives as enterprises, highlighted their specificities (Tamagnini, 1954). In fact, the primary goal of cooperative associates was the joint economic activity that allowed either the most convenient exploitation of the labour they supplied, or the indirect benefit deriving from the increased income resulting from the reduction in purchase costs. It followed that profitability was, however, an unavoidable element of cooperative enterprises, though it was not the fundamental one (Sapelli, 1981). In other words, if income was the end of the capitalist enterprise, it was a condition (a measure of efficiency) for the operations of the cooperative.

Many studies, especially Anglo-Saxon ones, subsequently gave theoretical models that put cooperative enterprises at a disadvantage compared to capitalist enterprises, due to: the particular distribution of property rights that would affect the objective function and the strategies (Ward, 1958); the weakness that derived from underfunding (Furubotn and Pejovich, 1970); the risk of inefficient choices or decision paralysis due to the voting right "one vote for one person" (Hart and Moore, 1990); and the scarce availability of capital, as the distributed control power exerted by the plurality of associates discouraged outside investment.



Economic models often suffer from the oversimplification of the underlying reality, which certainly gives the possibility to formalize the premises, the analyses and the conclusions of the analyses, but does not enclose the set of variables that are involved in practice and worth to be taken into account. With reference to cooperative enterprises, the approach which considers only the economic dimension appears restrictive, ignoring the other elements that determine the cooperative acting. Elements that find expression in the advantages of performing a common economic activity that allows to share resources, expertise and common values, which reinforce the protection of interests otherwise compromised.

An effective and important commentary on these positions was developed by Zamagni (2005), who highlighted the discriminatory use of the efficiency concept, focussed only on the relationship between means and outcomes, costs and benefits, but disregarding the interests and meta-economic impacts deriving from belonging to a social structure. From a historical point of view, the cooperative was created after the establishment of the capitalist firm, which can mean either that it was the result of the market failures, and that it occupied space and needs otherwise ignored, or, rather, that it represented *"a more advanced way of doing business in socially advanced systems"*. In the first case, the cooperative enterprise was relegated to a niche position, while in the second case, it could become the evolution of the capitalist enterprise in the long run.

#### *The business theory of cooperative enterprises*

The interest of scholars of business administration around the themes posed by the cooperative enterprises grew progressively, especially in the second half of the past century. According to a frequent distinction, these studies were developed around three fields (Zan, 1990; Garzoni, 2003): *the classical doctrinal position of the cooperative enterprise, the business-mutualistic position and the socio-economic position*.

With regard to the classical approach, it started from the rejection of the Fauquet taxonomy (Fauquet, 1948), that identified two types of firms: *profit-oriented firms* (coinciding with capitalist firms) and *service firms*. However, all businesses could be framed as service firms, or as tools by which various stakeholders could meet specific needs. In all companies stakeholders agreed to be paid on a residual base according to the results achieved (Tessitore, 1968). It follows that the specific characteristics of the cooperative enterprise lay in other features, and in particular in the shareholders' role and in the manner in which the business risk affected the remuneration, taking into account the nature of the interests involved.

In fact, the distinguishing elements of enterprises are not the production processes, but the difference in risk-taking and distribution of income. In capitalist enterprises the owner, holding the property rights guaranteed by the provision of the financial capital, in consideration of his managing power, accepts

any possible and residual remuneration, whose amount depends on the ability to achieve the appropriate level of income. In cooperatives, the person who accepts the residual remuneration was a plurality of people conferring specific inputs, varying according to the cooperative type. Further differences between cooperatives and capitalist firms could be found in the structure of the economic entity and in the ownership of the capital (Vermiglio, 1990), as in the cooperatives the economic entity has a broader connotation than in capitalist enterprises, both in terms of the number of involved subjects, and in terms of the complexity of the interests they bore.

The business-mutualistic position (Zan, 1990) recognized that the cooperative enterprise was characterized by the fact that the people taking the business risk were those that conferred specific factors of production and that the residual remuneration they received contained a *component* of profit (Marchini, 1977). However, the profit deriving from cost savings and additional remuneration, and resulting from the common management of the cooperative enterprise, were not the primary objective of the cooperative, as the consideration of the social group to which associates belonged and their intrinsic motivation could not be ignored.

The third position placed the cooperative enterprise in a broader context, underlining its potential to balance economic and social issues (Matacena, 1990). The analysis model focussed on the qualifying characters of cooperative enterprises, with specific regard to their fundamental objectives that could not be easily separated between economy and social life. The cooperative enterprise was defined as an *"economic institution based on the rules of proper management (with reference to the constraint of dynamic economic balance, i. e. economic, financial and capital self-sufficiency) but oriented to the achievement of several socio-economic objectives"*.

Cooperative enterprises had the same character of entrepreneurship of the capitalist ones, as they operated in the same way. The difference was represented by the social objectives oriented to enhance collective wealth. In this sense, the overcoming of the mutualistic vision oriented to increase the advantages of the contributing associates appeared evident, as the boundaries of cooperative acting are those of the entire community.

The above review of economic and business theories demonstrates the complex purposefulness and the morphological diversity of the cooperative enterprise. The reflection on the institutional forms capable of overcoming the dichotomy between the market and the public is of major importance, particularly in a time characterized by the increasing role played by cooperatives and social enterprises, despite the continuing and deep downturn in economic activity.

The development of cooperation, in its various forms, may be helped by the sharing of a conceptual scheme that overcomes positions sometimes inspired by ideological paradigms or by reductive conceptions of the enterprise efficiency, based solely on the ability to minimize the costs or to maximize

the money flow. The enterprise is no longer considered as a mere set of production means, but as a complex institution. The organisational forms of economic activity cannot be treated only in static terms searching for the conditions ensuring short-run equilibrium, as the economic behaviours of all actors are dictated by a number of reasons (Borzaga, 2008). Any firm is able to continue its operations when it manages to match cost efficiency with the multiple social needs it collects.

To integrate the above interpretations, it is necessary to recall the fact that the cost-effectiveness can be pursued within a wide range of choices, ranging from the search for the maximum efficiency of the contributed capital to the mere respect of the budget constraints in the absence of investment, while the social objectives can be pursued with varying intensity, starting from the utmost care of the social impact of economic production to the simple creation of goods appreciated by consumers.

The institutional structure of cooperative enterprises gives them the propensity and the ability to build composite forms of production and to incorporate into their choices both economic efficiency and social objectives.

In accordance with the above statements, it is ultimately possible to conclude that cooperative enterprises experience a continuous adaptation between economic and social incentives around which all the activities of economic production are developed. In this sense, the differentiation of forms observable in the composite universe of cooperatives can be justified, with some cooperatives more oriented to achieve the economic needs of their associates and others to achieve objectives having a strong social impact.

## **THE COMMUNITY-BASED COOPERATIVES: TWO CASE STUDIES IN PUGLIA**

In this analytical perspective, it is interesting to focus on community-based cooperatives, a further experience of the complex universe of the cooperative ways in which the economic activity can be directed. Specifically, the community-based cooperatives arise from collective initiatives promoted by a community of individuals (citizens) who belong to a defined territorial context and participate in the activities taking, even at the same time, the role of labour providers and users/associates.

The main purpose of the community-based cooperatives is that to meet the needs, in terms of both supply of goods and services and employment in a geographically well-defined community (Pearce, 1993). Such needs are left partly or totally unfulfilled both because of the scarce capacity of state and market intervention to meet them (Kingma, 1997; Weisbrod, 1975), and because of the welfare cuts and the consequent privatisation of some public services. In a wider perspective, it can be said that they are a new model, governed by the citizens of a given community for the purpose of producing goods and

services for the benefit of the local area and its residents (Fasiello, 2012; Gordon, 2002; Peredo and Chrisman, 2006).

However, the community participation in the management, while representing one of the main distinguishing features of this model, is not exclusive, because other (natural and legal) persons from outside the community can participate in corporate governance as well.

The community-based cooperative (or enterprise), while presenting many aspects similar to the social cooperative, as provided by the Italian legislation in Law no. 381/1991 (and to the social enterprise, as provided in Law no. 118 of 2005), does not coincide with such models, as there are no provisions to limit its fields of activity or constraints concerning the employment of disadvantaged people (disabled, drug addicts, alcoholics, prisoners, etc.) (Fasiello, 2012). The community-based cooperative, in fact, can carry out different types of activities (not just social healthcare and education services), provided that there is a link with a geographically defined community, the citizens' active participation and the goal of the local economic development.

In the community-based cooperative associates can be natural persons but also legal persons, public bodies, associations and foundations. Associates can play various roles, since there may be:

- working members, who provide their work consistently with their qualification and professional skills;
- user members, or individuals whose participation is due to the need they have to use the goods and services produced by the cooperative;
- financing partners or investors, who give the capital in order to obtain a profit, whose influence must be limited in order to avoid that they can exercise control at the legal and economic level.

It follows that the community-based cooperatives can be considered as a cross form of cooperative not coincident with a particular type or defined size, but characterized by the aim of creating proper conditions for the benefit of that particular community that participates actively to the economic development of the territory to which they belong (Giaccari and Fasiello, 2013).

In Puglia two community-based cooperatives have been recently formed: the first one, the "Community-based Cooperative of Melpignano", that has already been the subject of numerous studies (Bartocci and Picciaia, 2013; Gaudio, 2012; Giaccari and Fasiello, 2013; Stomeo, 2012), operates mainly in the renewable energy sector; and the second one, the "Community-based Cooperative Jemma of Zollino", that deals with the production and sale of local agricultural products. Both case studies are briefly analyzed on the basis of data and official documents and by means of a structured questionnaire with open-ended questions administered by direct interview to the President of the cooperative and the Mayor of the Municipality. In the case studies we highlighted the role played by local public administrations, the activity performed and the ways for citizens' participation.

## THE COMMUNITY-BASED COOPERATIVE OF MELPIGNANO

The "Community-based Cooperative of Melpignano" was established on 18<sup>th</sup> July 2011 as a result of a series of initiatives and activities undertaken for several years by the Municipal Administration (MA) of Melpignano in order to combine tradition with modernity and obtain economic sustainable development. In fact, this small village of Salento has become famous for the "Notte della Taranta", a festival organized together with other municipalities in the Greek Salento, that has contributed to the recovery and valorisation of the local cultural traditions and music. In 2007 the Municipality of Melpignano joined the National Association of Authentic Villages of Italy (AssoBAI) and today it is one of the founders of the National Association of Virtuous Municipalities, associations aimed at the valorisation and the sustainable economic development of the local communities and committed in reducing energy consumption, wastes and rubbish, in protecting land resources and in promoting recycling. It was in this context that the project for the establishment of the "Community-based Cooperative of Melpignano" was designed. In particular, on the occasion of a conference on responsible tourism organized in June 2010 in Cefalù, the National Legacoop President Giuliano Poletti offered AssoBAI, represented on this occasion by the mayor of Melpignano Ivan Stomeo, to experience a new form of cooperation, based on the self-organisation of the citizens of a community for the purpose of self-managing the development of their own territory. This new model was the community-based cooperative and the Municipality of Melpignano, thanks to the activism of its Mayor Ivan Stomeo, was one of the first municipalities to embrace such an initiative. On 9<sup>th</sup> February 2011, following the signing of the Memorandum of Understanding between Legacoop and AssoBAI, were organized public meetings aimed at the various groups operating in the area (trade associations, local tourist offices, etc.) and at the citizens of Melpignano (including those that for study and work reasons no longer resided in Melpignano). The involvement of the citizens occurred through direct contact (letters and questionnaires) and the activation of a help desk in the Town Hall. Following this, on 18<sup>th</sup> July 2011, the cooperative was established by 71 associates, including the municipality (which could participate by resolution of 11/07/2011). In this phase, the Municipality played an initial role of promotion and support aimed at allowing a subsequent independent development of the cooperative. In relation to this, in November 2012, the Municipality of Melpignano left the cooperative, which acquired full autonomy becoming expression of the will and capacity of the community to adopt a tool aimed at the harmonious development of its multiple resources.

Currently, the cooperative has 140 associates, who participate as both users (about 120) and self-employed professionals (electricians, plumbers, etc.) and whose skills are used, upon payment, for the implementation of the cooperative projects. Some of the associates live in the neighbouring towns or in other regions and participate in the cooperative because of their relations (by kinship, previous

residence) with the local community, or because they possess skills not available in the area and useful for the performance of the cooperative activities.

Each associate, upon acceptance of the application submitted to the Board of Directors (BoD) of the cooperative, pays a fee of € 25.00. The share capital currently amounts to € 4,450.00, but the cooperative also makes use of third-party capital, as it has obtained loans by Banca Etica (€ 320,000.00 to install photovoltaic panels and € 62,000.00 for the project *The water houses*), Banca Sella (€ 33,000.00) and a loan of € 100,000.00 awarded by Coopfond. The governing bodies of the cooperative are the Associates Assembly, that appoints the BoD members, and the BoD currently consisting of a President (Maria Cristina Schirinzi), a vice-president and three other directors. The cooperative operates in the fields of energy production (Ateco code 35.11) and trade and retail through vending machines (Ateco code 47.99.2). In its initial phase, the cooperative implemented a project for the production of energy through the installation of 34 photovoltaic systems on the roofs of the associates' houses for a total of 200 kw installed. This project was carried out thanks to a feasibility study (developed through the collaboration between the University of Salento and Officina Creativa), highlighting that these plants could cover about 47% of the annual energy needs of Melpignano through the production of about 729,000 kWh per year (compared to a total annual energy demand of the residents of approximately 1,563,562 Kwk). From the production of photovoltaic energy the cooperative is currently achieving annual average revenues equal to an average of € 53,000.00 (in 2013). From the implementation of this project derive direct and indirect benefits for the citizens of Melpignano. In fact, the users/associates (i. e. associates that allowed for the installation of a photovoltaic system on their roofs) have the right to free solar energy for twenty years, while the workers/associates and the professional associates were paid for the work they did for the realization of the photovoltaic systems and all citizens, including non-associates, benefit of the gains from the sale of the energy they do not consume. In this respect, the statute provides that the profits earned by the cooperative cannot be distributed to the associates. The Associates Assembly allocates such gains either for the implementation of services for the community (e. g. the management of canteens and sports facilities) and the improvement of urban quality (e. g. maintenance of public parks and roads), or reinvests them in new economic initiatives aimed at sustainable development and employment increase.

Moreover, in the past year (2013), the cooperative made a profit of around € 8,000.00 from another project, *"The water houses"*. This project consists of the installation of automatic dispensers of both still and sparkling drinking water in various municipalities of the province of Lecce. Currently, there are 10 dispensers available (but within April 2014 other 10 dispensers will be installed) capable of generating annual revenues of around € 34,000.00 (in 2013). *"The water houses"*, apart from ensuring a direct economic benefit to the cooperative and an indirect one to all citizens, supplying them drinking water

at a reduced cost (only 5 cents per litre), reduce plastic waste (citizens can buy a kit of 6 reusable glass bottles from the cooperative) for the advantage of the health of both consumers and the environment. In addition to these activities, the cooperative aims to involve citizens in other initiatives for the management of public spaces (such as the management of the school canteen, the creation of a tourist information centre and the opening of a workshop to rediscover authentic flavours), the exploitation of local resources, and the creation of new job opportunities, in order to support local vocations and an environment-friendly development.

## **THE COMMUNITY-BASED COOPERATIVE JEMMA OF ZOLLINO**

The community-based cooperative Jemma was established at conclusion of a process undertaken 8 years before by the Mayor (Francesco Mario Pellegrino) of the Municipality of Zollino in the province of Lecce (Puglia, Italy) and aimed at the promotion of the agricultural products typical of the local area. In the initial step, the Municipal Administration (M.A.) started a collaboration with a group of farmers, to try to valorise the local agricultural products, legumes in particular. The main aim of this collaboration was to prevent cultures and traditional activities of land cultivation from extinction, due to the lack of interest shown by the young sons and daughters of local farmers. This lack of interest was also motivated by the low income prospects of farming, due to the difficulty of a profitable placement of the local agricultural products on the market at competitive prices. In an area with agricultural vocation, like the Municipality of Zollino, and where there are no employment and development opportunities other than agriculture, the loss of the agricultural traditions and the extinction of local agricultural products would have produced very negative long-term economic and social impacts. This initial collaboration between the Public Administration and farmers-citizens for the protection of the distinctive characteristics of local legumes has led to some remarkable results, like the insertion into the list of the Traditional Agricultural and Food Products of Puglia Region of two typical legume species from Zollino, submitted to the public packaged for sale during the Saint John's fair, held every year on 24<sup>th</sup> June. The success achieved, as to the relevant sales volumes and the favourable prices obtained, pushed the M.A. to involve young people in taking advantage of the positive market response.

It was so started the second phase, that led to the establishment of the community-based cooperative Jemma. The M.A., thanks to the experience gained in the neighbouring Municipality of Melpignano and to the aid of Legacoop Puglia, urged all citizens to participate in a series of public meetings to gain consent and support for the project and to illustrate the development opportunities, not only in agriculture, that the cooperative would have brought about over time in the local area. The response of the territory was positive. In this phase, the support by Legacoop Puglia and Confesercenti (Commerce, Tourism and Service Enterprises' Association) was steady.

The community-based cooperative Jemma was established in September 2012 by 9 under forty founding members residing in the territory. One of the associates was the Mayor, who participated not as a representative of the Municipality, but as an individual. Currently the cooperative is made up of 47 ordinary associates, all young individuals, for the most part resident in Zollino. Non-resident associates (about ten) generally have family ties with the residents of Zollino or have been admitted to the cooperative for the skills they possessed (in the agronomic field for example), and considered useful for the cooperative. Among the 47 associates, only one is a permanent employee with the position of farm hand, the others participate in the cooperative activity through the associated management, that is to say by supplying their work as employee or self-employee, on the basis of contractual relations defined from time to time. The share capital of the cooperative is, as with all cooperative forms, a variable capital (Cassandro, 1976) and consists of shares of 25 Euros each. Initially, the cooperative started operating with a capital of 900 Euros, currently the share capital amounts to 4,700.00 Euros (100 Euros contributed by each associate). In fact, although the statutes provide for a minimum amount of 25 Euros, in an internal regulation, the cooperative provided for a fee of 100 Euros per member. The share capital is the only financial source currently used by the cooperative, as it did not resort to any other form of financing.

The cooperative bodies are the Board of Directors and the Assembly of the Associates. There are no statutory auditors. As required by cooperative's articles, the Assembly of Associates has to be summoned at least once a year, but it meets on average once every two months in order to update associates on the activity progress, to collect the associates' views and opinions useful for the improvement of the activity and to provide the associates with information and incentives. Currently, the Board consists of 5 members (all cooperative associates) appointed by the Assembly: the President (Antonio Calò), the Vice-President (Francesco Mariano) and 3 Directors (Castellano Raffaella, Francesca Gemma and Alessandra Pellegrino). The Board of Directors, beyond the management tasks, has the power to evaluate the applications to become associates of the cooperative, as both working and non-working members.

At statutory level, the cooperative is expected to carry out various production and service activities. The wide dimension of the purpose of the undertaking is aimed: - to involve the largest possible number of community members; - to encourage the use of the expertise existing in the area for the creation of new jobs; - to supply services for the benefit of the community as a whole; and - to provide employment opportunities for residents through the provision of organized services to third parties. This purpose has not been fully realized until now, partly because the cooperative is still in a start-up phase, but mainly because it has found administrative and bureaucratic obstacles that have effectively prevented the implementation of multi-sector and multi-target activities.



In line with the agricultural vocation of the territory, the cooperative produces and sells the following legumes: the *Nano-Pea of Zollino*, the *Cuccia (Broad Bean of Zollino)*, the *Grass Pea (called Toleca)*, the *black and white chickpea*. These legumes are grown on the land granted on free loan by non-associated residents and by the M.A., or grown by associates on their own land and then transferred to the cooperative, which completes the manufacturing process (cleaning and selection of the products, packaging) and deals with the market placement. There are associates who deliver the cooperative their agricultural products grown on their own plots of land located in the area, while the cooperative deals with the packaging and the market placement. In this case, the remuneration of the associates is carried out in the exchange relation established with the cooperative, that transfers to associates the 75% of the revenues obtained by the sale of the transferred agricultural products and holds the remaining 25% to cover the costs of packaging and distribution of the products and the operating costs of the cooperative. In addition, associated and non-associated cooperative members provide their uncultivated land (currently about 2 hectares), in exchange for receiving enough legumes for the needs of the family, benefiting at the same time of a free maintenance of the ground. Even the M.A., upon request by the cooperative, has made available a hectare of land on a free loan for the cultivation of legumes, under the cooperative's commitment to manage the ground, thus preventing the M.A. from paying the maintenance costs. The other plots of land used by the cooperative are grown autonomously by associates who deliver it their products.

The cooperative uses about 17-18 hectares. The products of the cooperative can be bought by residents directly from the cooperative store, at lower prices than the standard market prices, also thanks to the possibility of selling to local residents (families and restaurants) the unpackaged product. Legumes are mainly sold to people outside the Municipality of Zollino, thanks to agreements with agents that are responsible for the distribution of the products in stores dedicated to the sale of typical food products even outside the Province of Lecce (such as in the regions Puglia and Campania and on the French Riviera). The limited production volumes do not allow Jemma, however, to enter into agreements for large supplies of product with distributors at national and international level interested in the product (just think of Eataly). Therefore, the need to increase the production quantities while maintaining the traditional methods of production and the quality of the raw materials (seeds used are selected from the local production) becomes more and more urgent. In this regard, it must be considered that the limited production volumes are due not only to the limited availability of original local seeds, but also to the peculiarities of the production cycle of legumes (cultivation is made on a three-year rotation basis, so that the purpose of the production increase can only be achieved by cultivating a greater number of hectares). In this sense, the challenges, that the cooperative has to face, are the following: - to attract the interest of a greater number of associates, owning land in the local area; - to overcome the

cultural barriers discouraging the inclusion into the project of land owners belonging to the neighbouring municipalities; - to develop a more stable cooperation with the territory for the expansion of lands obtained on free loans and used for the production; - to acquire the right to use such land for a sufficiently long period (at least ten years). The entire community of Zollino takes advantage of the presence of the cooperative in terms of image return and development of the economic activities existing in the local area. In fact, the cooperative is able to attract customers from the neighbouring towns, so that the largest part of its products are sold in the provincial market. Then, there are various initiatives, such as the patronal feast, festivals and fairs that attract flow of tourists interested also in the cooperative products.

## CONCLUSIONS

As shown in the present work, cooperatives are a form of enterprise which developed subsequently to capitalist ones. To conclude, let's recall what Zamagni (2005) stated: *"Two interpretations can be given to this historical fact. The first sees the cooperative as the answer to a specific "failure" of the capitalist form of enterprise, i. e. as a kind of remedy or compensation for what the capitalist enterprise fails to obtain or to achieve... The second interpretation, however, sees the cooperative as a more advanced way of doing business in socially advanced systems... The first leads to relegate the cooperative to a niche position, useful and effective as long as you want, but to be included in the group of the exceptions to the rule... The second interpretation, however, leads to see the cooperative enterprise as the form to which the capitalist form of enterprise may tend in the long run, in advanced market economies"*. The present study focuses on the second interpretation and, in this sense, the study of the characteristics of community-based cooperatives, albeit limited because of the number of words allowed, is of great help to confirm the opportunities that cooperatives are able to offer for their ability to meet the needs of economic development and employment with the need to protect health and the environment in small local communities. The two case studies from Puglia show that job creation and the development of entrepreneurial activities on the part of the citizens can be implemented using this new cooperative model in which citizens self-manage the development of the local area through the production of goods and services at advantageous economic conditions, valorising local resources and creating employment, while at the same time protecting the environment and the natural and cultural vocations of the territory.

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## **CROSS-CULTURAL ISSUES IN OFFSHORING: GERMAN MANUFACTURING AND ENGINEERING IN INDIA**

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### **ABSTRACT**

This study focused on German middle-sized manufacturing and engineering companies offshored to India. The aim was to explore the working experiences of senior Indian managers, and to gain some understanding of how they perceive the cultural distance between the two countries. Further, and more importantly, how they manage the cross-cultural working environments within the offshored industry in order to progress their careers to senior levels.

Face-to-face semi-structured interviews were conducted amongst Indian senior technical and HRM managers, with more than ten years working experiences in German offshored manufacturing and engineering companies. The findings revealed that misunderstandings arising from strategic and operational paradoxes embedded in cross-cultural operations were a part of the daily working experiences. However, careers of those capable and willing to manage the cultural diversity were given an opportunity to progress to senior levels and to operate globally, beyond the initial German-Indian cultural boundaries. Further, the findings suggest that for the offshoring industry to effectively manage a culturally diverse workforce, it needs to understand individuals' constructs of the self, of others, and the relationship between the two, since these determine the individual's experiences on the emotional, cognitive and motivational levels. Thus deep understanding of cross-cultural issues and effective management of individuals ultimately impact the working relationships and the organizational outcomes.

### **Key Concepts**

Offshoring, cross-cultural awareness, cross-cultural dimensions, cultural distance, globalization, cultural convergence and divergence, the self, emotion, cognition, motivation.

## INTRODUCTION

Offshoring became a preferred modus operandi for organizations in today's global knowledge- and service-based economies. It is driven by the liberalization of governmental controls, the rise of supporting institutions and an access to new markets. Instant communications and fast moving and reliable transportation enabled organizations to geographically separate, or 'offshore' manufacturing and services in time and space (Quinn, 1999; Grossman and Rossi, 2006). 'Offshoring', sometimes referred to as 'a captive offshoring' includes manufacturing, and activities that do not require shipment of physical products thus can be performed in a foreign country. Blinder (2006) described offshoring as a migration of jobs but not the people who perform them.

The manufacturing industries began to outsource their non-core operations back in the early 1970s and services soon followed (Taylor and Bain, 2000, 2005; Hirschheim and Lacity 2000, Kanban, et al., 2003). Traditionally, China held a leading position in outsourced manufacturing. However, India with its English speaking and highly technically qualified young workforce, replaced China as a desirable destination for both outsourcing and offshoring, particularly in the ICT, engineering and R&D. Iit's rapid offshore market grew by about sixty per cent per annum, which accounts for over thirty percent of today's overall global outsourcing contract value (Tapper, 2004, Brown and Stone 2004, Mehta at al., 2006, Budhwar et al., 2006).

Germany, due to falling birthrates found itself short of technically qualified workforce, thus offshoring to India provided an attractive solution (Thurm et. al., 2007; Brandernburg and Domschke, 2007; 2009; Preissig, 2009; Heidemann, 2012; Demographic Change in Germany, 2011). Further, the move offered cost benefits from the economies of scale and, an entry into rapidly growing Asian markets.

Recently published research on management challenges in offshoring found an inverted U-shape relationship between suitability of tasks for offshoring and the level of skill and professional experience required to carry these out competently (Pollak 2003, Thurm 2004, Grossman and Rossi, 2006; Youngdhal et.al., 2008; Contractor et al., 2010; Mihalache et al., 2011; Jensen and Pedersen, 2012). Offshoring into a geographically and culturally different parts of the world carries both benefits and risks, depending on the task complexity. On the one hand, in labour intensive manufacturing employees perform relatively simple and repetitive tasks, thus instructions can be expressed in explicit symbols that are clear and relatively easy to learn. The output then can be successfully maintained and with fewer misunderstandings than tasks that require greater conceptual knowledge and skills (Hamlin et al., 2001, Levy and Murnane 2004, Leamer and Storper 2001). Knowledge intensive activities, on the other hand, consist of complex, non-routine tasks that require specific technical knowledge supported by shared tacit know-how skills. Some researchers reported that

organizations tend to radically re-engineer their processes for the purposes of offshoring. This tends to result in reduced quality of the R&D output, and the readiness to innovate (Brenner and Tushman, 2003; Grimpe and Kaiser 2010; Mihalache et al., 2011). Heenan and Perlmutter (1979) classified relationships between headquarters and offshored activities

according to the degree to which they are ethnocentric, polycentric, region-centric, or geocentric. In ethnocentric relationships, policies and procedures are imposed from the top; in polycentric, these are adapted and implemented locally. In region-centric relationships, the headquarters act as a buffer between the regions, and in geocentric relationships policies and procedures are developed with the input of all parties. Cultural diversity is having a potential both for synergy and disruption, depending on variables such as language, political stability, level of development, market size and sophistication, since they all can create the 'distance'. Finally, today's evidence shows that corporations rarely fall victims to the 'lack of fit' between national cultures. More often than not, corporate cultures are seen to modify the dynamics of national cultures (Buckley and Casson, 1976, 1979; Erramilli, 1996; Morosini, 1998; Parkhe, 1991; Shenkar, 2012).

### **Culture and HRM in offshoring**

In the late 1990s, organizations downsized, delayed and re-engineered their processes in order to become more flexible in keeping pace with new technology and the growing global competition. Re-engineering and managerial control required equally flexible HRM practices (Betcherman *et al.*, 1994). This meant selecting the human resource policies and practices that would best support that strategy. The new HRM embraced ideas of continuous employees training and development. A case was made for the inclusion of the HRM into the strategic decision making processes in order to develop a global approach to manage rapidly growing culturally diverse workforce (Brewster, 1990; Pettigrew and Henry, 1990; Guest, 1991; Sisson, 1994; Legger, 1995; Storey, 1995; Erickson and Gratton, 2007).

The present management literature suggests that successful organizations clearly and visibly articulate their values; focus on activities such as effective coordination of shareable ideas and, on cross-culturally transferable management capabilities. The HRM role is to attract and retain highly engaged diverse employees. Some believe, thus is achievable only when the HRM function becomes integrated into the strategic decision making processes (Yeung et al., 1999; Daniels and Radebaugh, 1998; Hamlin et al., 2001; Teece, 2007; Stahl and Bjorkman, 2006; Sparrow and Brewster, 2006; and Morris and Snell, 2011). This further demands a thorough awareness of the cultural assumptions underlying the HR practices themselves, and an ability to evaluate and resolve problems arising from cultural distance.

However, issues arising from managing a culturally divergent workforce make it almost impossible to develop a universally integrated HRM model. Morris and Snell (2011) attempted it by configuring

organizations' existing cross-cultural intellectual capital (individual, organizational and social) with their capabilities (generation of ideas, sharing knowledge and implementation of new ideas). The model was then tested in a number of manufacturing global organizations. The findings revealed two key conclusions:

1. successful development of organizational capabilities in cross-cultural contexts depend on how well the relationship between the individual, organizational and social dimensions is configured, and
2. all the tested dimensions were found to be equally important, although their impact on organizations' abilities to generate new ideas, to share knowledge and to implement new ideas in cross-cultural environments significantly differed.

In conclusion, Morris and Snell's (2011) research findings suggest, that an operable integrated HRM approach toward the more difficult aspects of cross-cultural diversity could hold a key role in the development of both organisation and employees' coping skills. While corporation cultures may show similarities, individuals in these corporations come from different cultures and hold different self-constructs, and how they see others. These constructs can and often do influence, the nature of individual experience, in terms of cognition, emotion and motivation (Markus, Kitayama, sighted in Baumeister, 1999).

### **Cross-cultural perspectives**

Culture is a complex construct consisting of social norms, values, beliefs and attitudes. It is often difficult to separate national cultures from their economic and political factors, although there is considerable evidence that some aspects of culture differ across national borders and have a significant impact in the workplace. For the purpose of this paper, Hofstede's (2001) 5D Model of cultural differences was used for determining the relative cultural distance between German and Indian technical employees, and more importantly, because the model tends to form a basis for a cross-cultural orientation training used by companies operating in different geographic areas.

Hofstede offers an insight into cultural distance by offering two outcomes: 1) it enables us to categorize seemingly inconsistent observations by asking questions about the assumed universality of motivation, cognition and emotions, and 2) the categories then help us to identify the role of culture in mediating and regulating individual and corporate behaviours.

The 5D Model consists of the following bipolar dimensions: individualism versus collectivism, power distance, uncertainty avoidance, and masculinity versus femininity. Later Bond (1991) and Minkov (2010) added *pragmatism versus normative orientation* and *indulgence versus restraint* dimensions.

Hofstede's socio-cultural dimensions are the following:

1. *Individualism versus collectivism* dimension compares group harmony and consensus against

individual approach to life:

- *individualism* is the tendency to rely on and take care of oneself, and
  - *collectivism* is characterized by a tight social network to which individuals belong, and feel different from other groups.
2. *Power distance* dimension addresses the extent to which the less powerful members in organization accept unequal power distribution.
  3. *Uncertainty avoidance* dimension refers to attitudes and behaviours toward uncertainty. (i.e.: avoidance of risk, and preference for predictability and control).
  4. *Masculinity versus femininity* dimension, addresses:
    - *masculine* cultures that emphasize assertiveness, competitiveness and materialism, and
    - *feminine* cultures that are concerned with quality of relationships, nurturing and social well-being.
  5. *Pragmatism versus normative orientation* dimension describes how people in the past, as well as today, relate to the fact that so much that happens around us cannot always be explained:
    - *organisations with normative* orientation generally have a strong concern with establishing the absolute truth, are normative in their thinking, exhibit respect for traditions, and focus on achieving quick results, and
    - *organisations with a pragmatic orientation* believe that truth depends very much on situation, context and time. These tend to adapt traditions to changed conditions and show perseverance in achieving results.
  6. *Indulgence versus restraint* dimension juxtaposes the free gratification of human needs against strict social norms:
    - *indulgence* stands for a society that allows relatively free gratification of basic and natural human drives related to enjoying life and having fun, and
    - *restraint* stands for a society that suppresses gratification of needs and regulates it by means of strict social norms.

The above 1 – 4 socio-cultural dimensions represent individuals' values and norms passed on from one generation to another during the process of socialization. The latter were added to support today's global business and organizational environments.

Trompenaar et.al.(1998) and Hall, et.al.(1960, 1984, 1990) developed further dimensions, such as 'universalism versus particularism', 'monochronic versus polychronic' and 'high versus low context culture'. These additional dimensions were extending the discussion beyond the scope of this study, thus were excluded.



The Table 1 below shows the current cultural values of India and Germany on the above 1 – 6 dimensions as published by the Hofstede Centre (2014).

	Country	Country	Score
<b>Socio-cultural Dimensions</b>	INDIA	GERMANY	Differences
Power Distance	71	26	+45
Individualism versus Collectivism	49	72	-23
Masculinity versus Femininity	57	68	-11
Uncertainty Distance	31	55	-24
Pragmatism v. Normative Orientation	52	57	+5
Indulgence versus Restraint	26	40	-14

*Source: The Hofstede Centre (<http://geert-hofstede.com>), 2014*

**Table 1: The Comparison of Scores Between India and Germany in Hofstede's 5D Model of Cultural Differences**

The above score differences between German and Indian cultures show Germany low on the power distance, and relatively high on uncertainty avoidance and individualism. India is high on power distance, but low on uncertainty avoidance and individualism.

Both cultures are relatively high on masculinity, which doesn't show in the scores. In India people are known to restrain from indulging in masculine displays to an extent that they might be naturally inclined to. In Germany, the focus is on success and achievement, validated by material gains. Work is the center of individual's life and visible symbols of success in the work place are important.

In Indian organizations, the real power is centralized and employees expect to be directed and told what is expected of them. However, Indian employees show a relatively low need for certainty provided by planning, tend to be patient, tolerant and inventive in "bypassing the system" when seeking answers to problems. Indians more than Germans show a preference for belonging to a larger social framework, where hiring and promotion decisions are often based on relationships.

Kogut and Singh (1988), Barkema et al. (1997) and Barkema and Vermeulen (1998) examined the role of uncertainty avoidance. They reported that uncertainty avoidance was more important than any other cultural dimensions in predicting outcomes. Hofstede's critics argue that his assumptions of

cultural equivalence are misleading. Further, his cultural distance index used to measure the constructs relies on national culture measures alone, where corporate cultures and behaviours tend to be overlooked (Goodstein & Hunt, 1981; Haspeslagh & Jemison, 1991; Schwartz, 1994; Schwartz & Bilsky, 1990). Whether we agree or not, cultural distance, by definition, implies homogeneity within national cultures, stability and symmetry between the home and host cultures. Further, it implies causal effects, on entry mode and performance. The culture distance construct is often used when explaining why companies fail, although, we have to remember that the construct of culture distance is difficult to conceptualize and could prove misleading for assessing success or failure in offshoring.

## THE METHODOLOGY

The key objectives of the study were to explore the expectations and realities of senior Indian managers employed by German offshored engineering and manufacturing companies. In particular, an information was sought about the process of their recruitment, cultural socialization, technical training, performance appraisal, compensation and rewards and career development.

### *Data collection*

Qualitative methods offer a broad range of techniques for describing, decoding and explaining meanings of observed social phenomena (Van Maanen, 1983; Easterby-Smith et al. 1991; Walker, 1991; Miller, 1991). Interviewing is a basic data gathering technique, and range from structured or directed questions to unstructured or open account. In depth, face-to-face interviews are the fundamental approach, and are appropriate where the primary purpose is to understand the meaning of issues and situations that aren't structured in advance by the researcher. This method is particularly effective for gaining new insights into management issues since it allows the researcher to probe the interviewee's personal experience and to encourage them to explore their personal values and beliefs. This has to be handled sensitively and with a considerable skill, if the researcher is to be trusted. Further, there is a need to understand the constructs used by the participants, and to understand their worlds. The researchers in this study opted for a semi-structured, face-to-face interviews, where respondents were asked to explore a number of open questions. The questions were structured around the topics of their job selection, socialization into the company, technical training, performance appraisal, compensation and rewards and career development.

### *The participants*

For the purpose of this paper, the snowballing method was used to select participants. The participants were senior Indian managers (nine technical and three HR) working for large German manufacturing or engineering companies. All were male, held technical degrees, and were aged

between mid forties to mid fifties. Each was in charge of more than hundred employees. The participants worked for German offshored companies for more than ten years, although except of one, who was employed by the same company continuously for twelve years, the rest were in their present employment for less than two years. One of the participants held eighteen positions in German offshored companies over the past fifteen years. Each attended cultural orientation workshop at the beginning of their employment, held locally, but then regularly participated in technical coaching programmes held in Germany. One commutes to Europe every six weeks and one currently manages his team in India from Germany. The HR managers spent two years in the company's HR department to learn the rules and procedures there, and to learn German.

#### *Time, data collection, place and recording technology*

The in-depth interviews were recorded in face-to-face situations. The participants were given the six topics outlined above and invited to talk freely about their experiences in German offshored companies. The interviews took place in the participants' offices over a period of six months in the first part of 2012. Each participant was visited twice and the duration of each interview was dependent on the availability of 'free' time and willingness to participate in the study. The first interview took a place during the working hours and the follow up interviews took place after working hours. In the latter, the 'mirroring' technique was used to clarify earlier reported issues. The interviews were digitally recorded and later transcribed and reflected upon in order to spot consistency in the narrative, signs of fatigue, a potential social desirability bias, or politically correct responses.

## THE INTERVIEWS

The interviews data were summarized into three broad categories: Recruitment, Compensation and Reward, Socialisation, Training and Performance Appraisal, and Cross-Culture Issues, and presented in Tables 2 – 4 below:

<b>Recruitment, Compensation and Rewards</b>
<ul style="list-style-type: none"> <li>• The central HR department is at the company's Headquarters in Germany, although the HR rules and policies are implemented locally.</li> </ul>
<ul style="list-style-type: none"> <li>• Technical employees are routinely recruited from other offshored companies.</li> </ul>
<ul style="list-style-type: none"> <li>• In order to reduce the negative impact of attrition, some offshored companies began to recruit individuals over the age of 35 years.</li> </ul>

<ul style="list-style-type: none"> <li>Western educated employees are sought after; since they are expected to adjust faster, although they expect higher salaries and a rapid promotion.</li> </ul>
<ul style="list-style-type: none"> <li>IT specialists and engineers expect to be promoted within 3 years.</li> </ul>
<ul style="list-style-type: none"> <li>IT specialists and engineers are more interested in good salaries than in long-term benefits such as healthcare and pension.</li> </ul>

**Table 2: The Senior Indian Managers' Reflections on Recruitment, Compensation and Rewards**

The qualitative data in the above Table 2 suggest that the Indian managers are comfortable with uncertainty by being prepared to change jobs in order to secure the best position available (as predicted by Hofstede's 5D Model). However, their senior management status suggests a high level of individualism and lower power distance, which differs from Hofstede's numeric indicators on the *Power Distance* and *Individualism versus Collectivism* culture dimensions.

Bhatnagar (2007) surveyed the Indian offshoring employment opportunities and concluded that while India has a large talent pool at the entry levels, the available pool of middle and senior management is relatively small. The latter's annual attrition rates were estimated at about 30-35 per cent (Phukan, 2007). This is seen as a potentially serious problem both for India and the whole offshoring industry in terms of developing trust and a shared base for a long-term productive relationship. The above findings tentatively support Bhatnagar and Phukan's conclusions, although it isn't clear from their statement, what assumptions underlie their vision of 'a long-term productive relationship'.

<b>Socialisation, Training and Performance Appraisal</b>
<ul style="list-style-type: none"> <li>Cross-cultural awareness training for expats is carried out in Germany and for Indian technical employees in India. These tend to be delivered by external trainers.</li> </ul>
<ul style="list-style-type: none"> <li>In the past, only German engineers were project leaders. Now they come to India only for up to three months at a time. This, in the view of their Indian colleagues often causes communications and timely resolution of problems.</li> </ul>
<ul style="list-style-type: none"> <li>All development and technical training programmes (both technical and cross-cultural orientation) were developed in Germany.</li> </ul>
<ul style="list-style-type: none"> <li>Indian project managers are trained in Europe and the training was considered excellent.</li> </ul>
<ul style="list-style-type: none"> <li>Manual prototype testing is always carried out in India, for costs reasons.</li> </ul>
<ul style="list-style-type: none"> <li></li> </ul>
<ul style="list-style-type: none"> <li>Today, Indian project leaders can expect to spend working 3 – 6 months per annum in Europe, while directing the operations in India from there.</li> </ul>
<ul style="list-style-type: none"> <li>Indian engineers working as global project leaders can spend up to 2 years</li> </ul>

in Europe.
<ul style="list-style-type: none"> <li>Finally, the managers felt that they need to be included more in planning and decision making processes.</li> </ul>
<ul style="list-style-type: none"> <li>European style appraisals tend to offend Indians who, on receiving lower than expected rating, tend to leave.</li> </ul>

**Table 3: Socialisation, Training and Performance Appraisal**

The above findings suggest that the cultural orientation programmes tend to be left to external training companies to develop and to deliver on behalf of the parent company, while the technical development programmes are developed at the parent company. Further, the above table reveals some misunderstandings arising from strategic and operational paradoxes embedded in cross-cultural operations that are an integral part of the daily working experiences. However, careers of those capable and willing to manage cultural diversity were given an opportunity to progress to senior levels and to operate across cultural boundaries.

In terms of Hofstede's 5D Model of cultural dimension, the above findings suggest high individualism, and low power distance amongst the managers, which doesn't comfortably fit into the model.

<b>Cross-Cultural Issues and Career Development</b>
<ul style="list-style-type: none"> <li>When misunderstandings arise, these are attributed to German engineers not speaking fluent English.</li> </ul>
<ul style="list-style-type: none"> <li>The managers felt that they alone were expected to culturally adapt, rather than it being a two-way process.</li> </ul>
<ul style="list-style-type: none"> <li>The managers raised questions about European and Indian technical teams being valued equally.</li> </ul>
<ul style="list-style-type: none"> <li>The managers reported problems when communicating with the local and central HR departments. These were referred to as 'a nightmare' and 'unresponsive' to the local needs.</li> </ul>
<ul style="list-style-type: none"> <li>The managers are used and willing to work long hours, if needed, and don't understand they are discouraged from working outside the official working hours and at weekends.</li> </ul>
<ul style="list-style-type: none"> <li>Not all German engineers are seen as 'multiskilled', on occasions were reported to arrive unprepared, and are known to refuse to help by claiming that: '... this isn't their job, ...'.</li> </ul>
<ul style="list-style-type: none"> <li>Until recently, German engineers held all senior positions.</li> </ul>
<ul style="list-style-type: none"> <li>The HR managers were satisfied with their role, although would welcome greater interaction and an exchange of ideas with the Headquarters.</li> </ul>

**Table 4: Cross-Cultural Issues**

The above table shows that the company aims and objectives are clearly carried out by a diverse workforce with different work ethics. This suggests that the relationship between German offshored companies and Indian technical employees is becoming professionally integrated without necessarily narrowing the culture distance. The next step to ask is if there are recognizable and universal aspects of culture-free components of cognition, emotion and motivation, and to what extent these help to unify diversity. However, answering these questions extends beyond the scope of this study.

**DISCUSSION**

Hofstede's 5D Model of cultural dimensions was used as a framework to gain an insight into the cultural differences between German and Indian offshoring operations. This offered a fairly familiar conceptual framework for the researchers to work with when attempting to categorize seemingly inconsistent observations by asking questions about the assumed universality of motivation, cognition and emotions, and to identify the role of culture in mediating and regulating individual and corporate behaviours. Hofstede (1989) believes that some cultural differences are less disruptive than others, although the expatriate literature suggests that adjustment to similar cultures can be just as difficult as adjustment to distant ones (Black & Mendenhall, 1991; Brewster, 1995; O'Grady & Lane, 1996).

This study focused only on the offshoring experiences of senior Indian senior managers and the study findings suggest that in spite of the considerable culture distance between the two nations, Indian technical employees are offered an opportunity to become integrated into the parent company and at relatively senior levels without losing their cultural identity.

Leading culturally diverse teams requires an understanding of leadership and its effectiveness and is an accurate predictor of performance outcomes. Effective leadership has a positive impact on employee task performance, organizational identification and organizational citizenship behaviour (Piccolo, Greenbaum et al. 2010, Walumbwa, Mayer et.al. 2011). It plays an important role in the process of sense making and sense giving, thus the culture construct in the role of leadership is an important one.

Culture is a dynamic force for change, influencing and being influenced by other world-views and acts. A belief that today's globalization has a homogenizing influence on local culture has not been so far supported. However, leveraging the benefits of offshoring against protecting the local culture requires a careful approach. Different cultures have different concepts of individuality that determines the basic relatedness with others and with institutions. The difference between individuals in 'independent' or 'interdependent' cultures has a distinct set of consequences for their cognition, emotion and motivation, and none of the three components have been found as being culture-free.

Cultural distance aside, financial threats to offshoring can be considerable. The initial investment in the relocation requires additional resources without affecting the daily activities. This can weaken the communication of the strategic objectives to the employees, introduce uncertainty, detract the focus on innovation, and lose experienced employees. The introduction of culture distance construct adds complexity, which is difficult to include in the calculations during the initial planning process.

In conclusion, if offshoring is not to buckle down under the weight and cost of culture distance, the HR function has to take on the responsibility for managing culturally diverse recruitment, develop culturally aware leaders, and provide direction, without undermining the individual's self-construct. By attracting, and developing employees who are comfortable with the strategic and operational paradoxes embedded in the global organizations and who are capable of maintaining cultural diversity, the HRM becomes the key change agent in helping organizations to achieve their strategic aims.

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## REACHING ORGANIZATIONAL OUTCOMES IN THE HEALTHCARE SECTOR

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### ABSTRACT

This paper aims to examine management practices in the healthcare sector in Portugal. More specifically, intends to assess the effects of the adoption of a set of accounting and management practices, involving various aspects such as organizational innovation, or the use of measuring systems, as a mean to achieve organizational results, through effectiveness and efficiency.

Usually hospitals are regarded as a kind of organization with a greater degree of complexity both in their structure and administration. This complexity poses a challenge to this research, but also justifies its interest, as it contributes to mitigate the gap that the literature exhibits within this strand of research, particularly when regarding the Portuguese environment.

The objective of the paper is to examine the management practices in Portuguese hospitals, with a focus on innovation, which is a critical variable in the healthcare sector, while inquiring whether the adoption of an innovative attitude, together with the implementation of reward and training programs, may contribute to achieve organizational outcomes. The completion of the investigation relies on a survey directed to Portuguese hospitals, using interviews and the questionnaire methodology.

**Keywords:** *Innovation, reward and training policies, performing evaluation systems, healthcare*

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### INTRODUCTION

Usually hospitals are seen as one of the organizations with a greater degree of complexity at either in structure or at administration level. There are even authors who argue that healthcare organizations are of high difficulty as to its management, cataloguing them as "extraordinarily complicated

organizations", although their complexity can be mitigated when their dimensions are analysed separately (Glouberman and Mintzberg, 2001a, 2001b: 58), a methodological approach which will be used in this article. One of the gurus of management, referring to hospital organizations, pointed out them as being the most complex to manage (Drucker, 1989). A very own special dynamics of the market in which they operate and the existence of specific characteristics of their business models and management are major factors contributing to this complexity (Jacobs, 1974). Such complexity is a challenge for this paper, but also justifies the research interest in an area where there is still much to investigate.

The health sector in Portugal is in a phase of deep reform standing before a crisis plaguing the country and also an increasing life expectancy, causing the "welfare state" financing model, that is based on the principles of solidarity and security, prevailing in European countries for over a century, being currently at risk as it does not appear sustainable due to increased demand and lack of economic growth, coupled to demographics associated with an ageing population, which is lacking for broader attention and medical care.

This paper aims to examine management practices in the hospital sector in Portugal. More specifically, intends to assess the effect of the adoption of a set of accounting and management practices, involving various aspects such as organizational innovation, or the use of measuring systems, as a mean to achieve organizational results, through effectiveness and efficiency.

Usually hospitals are seen as a kind of organization with a greater degree of complexity both in their structure and administration. This complexity poses a challenge to this paper, but also justifies its interest, as it also contributes to mitigate the gap that the literature exhibits within this strand of research, particularly when regarding the Portuguese environment.

The objective of the paper is thus to examine the management practices in the Portuguese hospitals, with a focus on innovation, which is a critical variable in the healthcare sector, while inquiring whether the adoption of an innovative attitude, together with the implementation of reward and training programs, may contribute to achieve organizational outcomes. The completion of the investigation relies on a survey directed to Portuguese hospitals, using interviews and the questionnaire methodology.

## **PREVIOUS RESEARCH AND HYPOTHESES**

In order to be synthetic, this section presents some literature review together with the research hypotheses developed for this research.

The majority of authors argue that the purpose of innovation implies the need for structural adjustments, as well as the monitoring of market dynamics (eg Miller, 1987; Habib and Victor, 1991;

Naman and Slevin, 1993; Miles et al, 2000; Slater and Olson, 2000; Abernethy and Lillis, 2001). Pursuing this type of attitude, the need for continuous monitoring, regarding best practices in office, become relevant, while structural arrangements that enable greater organizational fluidity, resulting in the creation of autonomous units, are regarded as a very interesting option (eg Lawler, 1993; Cohen and Ledford, 1994; Scott and Tiessen, 1999; Bouwens and Abernethy, 2000; Abernethy and Lillis, 2001).

Bearing in mind that organizational decentralization propels the possibility of greater responsibility at the autonomous units level, it becomes evident the need of development of incentive policies, both at administrative and clinical management levels, the adoption of which can likely to stimulate and guide their management efforts (eg Abernethy and Lillis, 2001; Glickman et al, 2007). As for the effectiveness of such incentives, however, there may be some doubts, particularly when the size of the bonus is disproportionate to the inherent objectives (see eg Glickman et al, 2007).

Additionally, there is also the issue related to the fact that the incentive systems contemplate organizations, not rewarding individual professionals. This is the case of the largest incentive program launched to date in 2003 in the U.S., the Hospital Quality Incentive Demonstration, organized by the U.S. Centers for Medicare and Medicaid Services and directed to the compensation of the performance measured across a standard base on the centers doctors, but without addressing the clinical and operational staff, having even been called into question as the size of the allocated bonus, which many considered insufficient to stimulate a significant improvement of quality of services (see eg Glickman et al, 2007:345 ).

Despite the existence of such issues, what seems indisputable is the fact that the strategic design of an innovative attitude justifies the adoption of a policy for performance incentives (eg Abernethy and Lillis, 2001; Glickman et al, 2007), so together with the rational already developed before in this paper, we formulate the following hypothesis:

*H1: There is a positive relationship between a strategic emphasis on service innovation and the adoption of a bonus policy.*

Concurrently, and in the wake of the theories discussed above (vid. eg Law et al, 1996; Gupta et al, 1997; Abernethy and Lillis, 2001), taking into account that the purpose of adopting a policy of incentives will be particularly in order to achieve organizational results, measured in both increases in efficiency and effectiveness, two other hypothesis can therefore be drawn, as shown below:

*H2: There is a positive relationship between the existence of a policy of performance bonuses and the possibility of achieving organizational results through efficiency gains; and*

*H3: There is a positive relationship between the existence of a policy of performance bonuses and the possibility of achieving organizational results via efficiency gains.*

As organizational innovation can lead to the implementation of an incentive scheme with the aim of achieving organizational results, it can then also be expected to be accompanied by the implementation of a training policy. This will also be the case of the hospital sector, in addition to financial and performance assessment, it is important to have generic medical training programs, so that it may ensure the timeliness of medical professional skills, ensuring their preparation for action in dynamic environments that fit the attitudes of innovation (see eg Abernethy and Lillis, 2001).

In line with the above, with the expectation that a strategic vision supporting innovation will lead to a boost in adopting education policies, it makes the following hypothesis reasonable:

*H4: There is a positive relationship between a strategic emphasis on service innovation and the existence of incentives for human resources training.*

In this context, the importance of training policies, according to Govindarajan (1988), is of particular relevance to this paper, especially at the level of practice, as it suggests that the CEO of multi-businesses organizations should not adopt a uniform standard for the management, but should, conversely, adopt a flexible approach in order to adapt the strategy to individual business units. In particular, this study has practical applications in two critical areas: the strategy of human resource management and control system, which will be discussed later. From the point of view of strategic human resource management, has implications not only for those responsible for the selection and development of managers from diversified firms, but also to the managers in general, as all decisions are made with same objective in mind, ie find a way to improve overall effectiveness.

Based on the reasoning that has been developed in this paper and is supported by the theories presented earlier, as looking obtaining organizational outputs from a strategic approach to innovation, will be thus expected an orientation of a training policy for obtaining results. However, unlike previous hypotheses that were formulated based on the adoption of a policy of incentives, in the case of organizational results expected in relation to the output resulting from the implementation of a training policy it is not expected to achieve efficiencies but only obtaining efficiency, since it is assumed that such training will be more directed towards clinical, or related services, and not so much to financial gains.

Accordingly, from the implementation of a training policy output, another hypothesis can be outlined:

*H5: There is a positive relationship between the existence of a policy of human resource training and the possibility of achieving organizational results via efficiency gains.*

## METHODOLOGY

The investigation relies mostly on a survey directed to Portuguese hospitals, using interviews and the questionnaire methodology.

The preparation of the questionnaires was preceded by pilot interviews with experts in the field of the hospital sector, particularly involving from doctors and medical assistants to administrators responsible for hospital management. Exploratory interviews were previously conducted towards elements responsible for clinical units, and also top hospital management members. In metric terms, the majority of questions were prepared in "closed" mode, using a Likert scale of 7 levels, with different degrees of qualitative assessment, as you can see in appendices.

The theoretical description and presentation of the metric adopted for each variable used in the theoretical model subject to testing in this paper is now discussed.

#### *Service innovation*

Like Abernethy and Lillis (2001), this research follows the strategic typology structured by Miles and Snow (1978), with the aim of examining the extent to which hospital organization was determined to meet the needs of the market, or took advantage of the opportunities offered within this sector by making changes in the range of services offered. This typology is intuitively appealing, since the development and adoption of innovation in services is directly related to the description of a prospector. Adopting this strategy type is also advantageous because of its massive use, as well as having already been tested for its theoretical strength (Doty et al. 1993). Additionally, it has also been examined considerably in terms of metrics within the social sciences, particularly with regard to psychology (Snow and Hrebiniak, 1980, Shortell and Zajac, 1990). Although Miles and Snow (1978) describe as the prospector as the one who always tries to be the first among the pioneers in the development of new products and/or services, having a high capacity for the exploration and exploitation of market opportunities, in this paper, however, the key point of interest lies in identifying the hospitals on a scale of between prospector, aggressive in seeking opportunities up to defensive, ie more concerned about keeping the areas where it is already present. Naturally, the classification of hospital organizations from a range of prospectors versus defensive, follows the logic adopted by Abernethy and Lillis (2001), based on Miles and Snow (1978), being focused on the analysis of the level of dedication of these organizations as service innovation, insofar as this is reflected in the consequent degree of change in their service mix. As previously mentioned, innovation service is regarded as a continuous, in which one end is shown a hospital involved in little change, while the other end is shown a hospital that is continuously changing the range of services offered.

Thus, in this research is adopted the metric used by Abernethy and Lillis (2001), which operationalized the construction of the representation of this continuous offering, according to two extreme descriptions of the strategic position of a particular hospital, questioning the organization

regarding the degree of change and innovation in the supply of services, to be classified by the respondents 1 to 7, within the spectrum of this continuum.

More specifically, the questionnaire refers to two types of hospitals, one in the conventional manner, Hospital A, resistant to change, which is not in the forefront of offering new services or as to the monitoring of market innovations that have occurred in their sector, which tends to focus on current areas of operation, not valuing incentive policies or the training of its human resources. Therefore, a low score answering this question gives an indication of a classic hospital that is perfectly framed in a community, which offers basic services in general medicine and surgery. Certainly away from a great complexity in terms of providing services, this type of hospital organization may even have some degree of innovation, but necessarily at a very limited scale, because their primary concern will be maintaining the status quo, trying to ensure providing a good level of existing services.

On the other hand, a higher score response, gives an indication of a respondent from a type B hospital, which corresponds to an organization that tends to offer a wider range of innovative medical services compared to other hospitals, in both similar size characteristics, given subject themselves to a greater extent of rules and market dynamics. In this case, it is about a hospital that conducts relatively frequent changes in its set of services, quickly responding to new opportunities or evidence of new market needs, and therefore is continuously at the forefront of developing new services being followed up by other hospitals. Usually, this type of hospital organizations values the training of its human resources and adopts incentive systems. The B Hospital is directed to be an innovation both in terms of services as to the level of information and control systems organization, because there is concern about adopting the most advanced practices in management.

#### *Bonus and training policies*

Assuming that at least some hospitals take an innovative approach, concerned with the need for structural adjustments, in order to monitor the dynamics of the market, one should expect the existence of autonomous units within the organizational decentralization, which justifies the interest in the development of incentive policies, both as well as the qualification of employees, by implementing a vocational training level of clinical management and administrative staff.

Thus, it seems pertinent to examine the extent to which the innovation will justify the adoption of a bonus policy, related to performance, so a question of the inquiry seeks to assess the existence of the bonus level in Portuguese hospitals. Additionally, given the evidence already examined before is expected that the aim of implementing a bonus policy is mainly related to achieving organizational outcomes, both in terms of efficiency and effectiveness, which is intended to be measured with question 3 [a), b)]. The rationale behind the existence of a policy associated with the assumption of an

innovative attitude related to incentives can also be applied to the justification of the interest in adopting a policy of training. In fact, it is expected that an innovative approach not only results in the adoption of a system of incentives, but also result in the implementation of a training policy, also with the aim of achieving organizational results. As discussed earlier in this paper, the existence of training, both physicians and other programs, will be relevant in the hospital, because it allows the current skills of its professionals, ensuring their ability to act in dynamic environments resulting from an attitude of innovation.

Assuming the expectation that a strategic vision supported innovation, that will stimulate the adoption of education policies, is framed in the questionnaire, among many items, including direct measurement of possible policy interventions.

However, in terms of organizational outcomes, unlike the output expected from the adoption of a bonus policy, in the case of the implementation of a training policy is not expected to achieve efficiency gains, but only effectiveness, since, as already discussed it is assumed that such training will be targeted to clinicians, or related services, and not for financial purposes. Consequently, the measurement of a positive relationship between the existence of a policy of human resource training and the possibility of obtaining efficiency gains can be realized, but only indirectly.

#### *Performing evaluation systems*

Based on the seminal work of Hopwood (1976), and in subsequent literature (eg Hartmann, 2000; Otley and Fakiolas, 2000), which, however, is only focused on the dimensions of the mechanism developed by Hopwood, Abernethy and Lillis (2001:118), who used an instrument developed with the purpose of capturing the construction of Performance Measurement Systems (PMS), this research also incorporates the latest research that includes criteria for both quantitative and qualitative performance (Ittner and Larcker, 1998), as well as considers studies carried out in the hospital sector and other service sectors that included similar procedures to the research presented in this study, following the steps of Abernethy and Lillis approach (see eg Abernethy and Stoelwinder, 1991, Smith, 1993; Lee et al, 2000; Watkins, 2000).

Concurrently, this paper includes the measurement instrument adopted by Abernethy and Lillis (2001), who consider seven items as relevant in assessing the performance of clinical units, concluding, from a previous factor analysis that provided support for the identification of the two dimensions of performance measurement (SMD) systems, they could be categorized as follows: i) the items of the performance level of cost and productivity (throughput) represent a more quantitative factor associated with performance management in resources (RMP or resource management performance); ii) while the remaining items represent measures of performance of a more qualitative nature,



representing the performance criteria of clinical management (CMP or clinical management performance).

#### *Organizational outcomes*

The measurement of organizational outcomes in the hospital sector include both the aspect of efficiency and effectiveness, so Abernethy and Lillis (2001) developed a working instrument that required senior management to disclose the criteria considered most important in determining the actual hospital performance. Taking advantage of this prior work by Abernethy and Lillis (2001), this study's interviews were initially conducted using an exploratory nature, with several officers and staff of the hospital, and also medical management, in order to confirm the relevance of such criteria in the framework of the hospital sector in Portugal. As a result of such an inquiry, we developed a tool for evaluating hospital performance perceived by the management which includes six items, two of which are related to management efficiency and the remaining four concerning the efficacy of medical service.

#### *Sample*

The sample taken for the study of hospital sector in Portugal is composed by 49 responses from a set of 96 questionnaires sent between 2010 and 2011, corresponding to a list of 65 public hospitals and 31 private, which has been determined as to be the hospital population on the date of early 2010. More specifically, 36 responses were deemed valid, from public hospitals, and 13 private entities questionnaires were validated as well, representing a response rate of 55.38% for public hospitals and 41.93% for the private ones. The percentage of total valid responses was 51.04%. Finally, it is also important to note that private hospitals compose 26.53% of the sample, while public hospitals comprise 73.47%. In terms of characteristics of the hospital sector represented in the sample can be pointed out that, on average, the public sector hospitals are larger and more complex organizational structures. In fact, while the average number of hospital beds in the public sector totals about 336 (35 observations), this number in the private sector decreases to only 123 (13 observations), for an overall average of 278 beds in the entire sample (48 observations). Regarding the number of clinical departments of the hospital, it amounts to an average of 15 for public hospitals (34 observations), while in the private sector is less than 3 (12 observations), adding that on average almost 2 heads of department have training in hospital administration in the public sector, while the private sector the average is only 0.25, for the same number of observations referenced above. As for the experience of the directions, the differences are less significant. Nevertheless, the indicators of seniority are superior in the private sector. In terms of seniority of clinical management, it overcomes the three years in the

public sector, and 8 years in the private, and the time period of the collaborative clinical director of collaboration in the hospital, not necessarily in a managerial capacity exceeds 16 years in both the public and private sectors. With regard to the administration and/or hospital management, the average time served in roles of administration is about 7 years in the public sector, while the private sector amounts to almost 13 years. Finally, the period of collaboration in the hospital, not necessarily corresponding to administrative tasks only, amounts to 10 years in the public sector and 13 years in the private sector.

*Variable aggregation using factorial analysis (principal component analysis)*

Following the factor analysis made, regarding identification and dimensional grouping, from the items placed in the questionnaire shown in the Appendix, the variables constructed to test the theoretical model, are shown in the table 1.

<b>IO</b>	Innovation Organizational
<b>RMP</b>	Resource Management Performance
<b>CMP</b>	Clinical Management Performance
<b>RO1</b>	Return/Outcome (Efficiency)
<b>RO2</b>	Return/Outcome (Effectiveness)
<b>PB1</b>	Policy Bonus (Efficiency)
<b>PB2</b>	Policy Bonus (Effectiveness)
<b>PF1</b>	Policy Formation-Training
<b>PF2</b>	Policy Formation-Training (Effectiveness)

*Table 1 – Variable list*

## RESULTS AND CONCLUSIONS

The research hypothesis were tested using correlations between the variables constructed as shown before in this paper. Before a detailed examination is made, table 2 offers a global view of the results obtained. Hypothesis were constructed assuming positive correlation, as expected signal. All correlations stated are statistically significant at least at the confidence interval level of 95%, for both Pearson and Spearman ranks, unless stated otherwise, or inconclusive.

<b>Hypothesis</b>	<b>Results</b>
<i>H1: IO_PB</i>	Inconclusive (Accepted at 90% - Pearson)
<i>H2: PB1_RO1</i>	Inconclusive
<i>H3: PB2_RO2</i>	Accepted (+)
<i>H4: IO_PF1</i>	Accepted (+)
<i>H5: PF2_RO2</i>	Accepted (+)

*Table 2 – Hypothesis testing results*

*Organizational innovation and bonus policy*

According to our findings, there is a positive relationship between IO and PB, with a correlation of 36.7 %, statistically significant only at 90 % (value 0.0852, Pearson correlation) for 23 observations, nevertheless without enough evidence, or statistical power, allowing to clearly accept Hypothesis 1, Nevertheless, one cannot suggest neither its rejection in a wider confidence interval, such as the significance level of 10%. Thus, like Abernethy and Lillis (2001) and Glickman et al. (2007), it does seem that the strategic design of an innovative attitude justifies the adoption of a policy of incentives for performance, even if one can assume in our study that there is a weak positive relationship between a strategic emphasis on service innovation and the adoption of a policy on bonuses.

*Existence of a policy of bonuses and premiums and organizational outcomes (efficiency)*

There is a positive relationship between PB1 and RO1, with a correlation of 19.4%, but that is not statistically significant (test value 0.37 for 23 observations), so we are not able to conclude about the acceptance or rejection of hypothesis 2. Therefore one cannot even clearly suggest the existence of a positive relationship between the adoption of a policy of performance bonuses and the possibility of achieving organizational results through efficiency gains.

*Bonus and bonus policy and organizational outcomes (effectiveness)*

There is a positive relationship between PB2 and RO2, with a correlation of 61.5%, statistically significant at the 99% level, for 23 observations, and therefore we infer about the non-rejection of Hypothesis 3. Thus it can be stated that there is a positive relationship between the existence of a policy of performance bonuses and the possibility of achieving organizational results via efficiency gains.

*Organizational innovation and training policy*

There is a positive relationship between IO and PF1, with a correlation level of 39.4%, statistically significant at the 99 % confidence interval, for 48 observations, thus Hypothesis 4 cannot be rejected. Thus, according to this hypothesis one can conclude that there is a positive relationship between a strategic emphasis on service innovation and the existence of incentives for training of human resources

*Training policy and the possibility of efficiency gains and organizational outcomes (effectiveness)*

There is a positive relationship between PF2 and RO2, statistically significant at the 99% confidence interval, using 48 observations, with a correlation level of 59.2%, implying the non-rejection of hypothesis 5. Accordingly, one can conclude that there is a positive relationship between the existence

of a policy of human resource training and the possibility of achieving organizational results via efficiency gains.

#### *Global evidence*

Overall, not a single hypothesis was rejected. Just two could not be statistically accepted, suggesting the quality of the model literature used, and the theorization and model testing performed here. These facts contribute to the validation of the methodology and testing used, which is not unrelated to the quality of the literature used to support this study. Moreover, the results shown in this paper generally corroborate the theoretical formulations and previous results obtained from some noteworthy literature used in this investigation, such as the case of the prominent articles produced by Abernethy and Lillis (2001) and Govindarajan (1988).

As caveats, one should highlight that only a small number of healthcare organizations surveyed employed policy bonus and/or have full performance measuring systems in place, which probably is the main justification for the inconclusive results obtained for hypotheses one and two.

While focusing in the Portuguese healthcare sector, this paper allowed not only to highlight the importance of some critical factors, such as innovation, reward, and training systems as a way of obtaining organizational outcomes within the scope of the Portuguese reality, but also allowed to corroborate evidence suggested by remarkable research made elsewhere, such as in the case of Australia (Abernethy and Lillis, 2001).

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## APPENDIX - QUESTIONNAIRE

**1. Hospital A** - Offers a relatively stable set of services and tends to focus on a particular segment (i.e., geographical region) of the population and offers a more limited range of services/programs than other hospitals of similar size and function. Generally, Hospital A is not at the forefront of new services or market developments in health care. Developments in services/programs tend to concentrate on current areas of operation. It believes that doing the best job possible in its existing range of services/programs and refining existing services/programs are of utmost importance.

**Hospital B** - Makes relatively frequent changes in, and additions to, its set of services/programs and tends to offer a wider range of medical services compared to other hospitals of similar size and function. Hospital B responds rapidly to early signals of market needs or opportunities and it consistently attempts to be at the forefront of new service/program developments. Other hospitals often follow Hospital B in the development of these services/programs. This type of hospital may not maintain its strength in all of the areas it enters.

Please indicate the positioning of your hospital within the two extreme situations presented, in which "1" represents the type of Hospital A and "7" the kind of Hospital B.

### 2. What kind of additional compensation the hospital offers to its employees?

	Fixed Bonus	Individual Variable Bonus	Team Variable Bonus
a) Board/Administrators			
b) Clinical Service Coordinators			
c) Doctors			
d) Nurses			
e) Technical Staff			
f) Administrative Staff			

### 3. Indicate to which extent the following items influence the performance bonus:

1- Well below average	....	4- Average	....	7- Well above average
--------------------------	------	------------	------	--------------------------

	1	2	3	4	5	6	7
a) Budget performance	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

- |   |                          |                          |                          |                          |                          |                          |                          |
|---|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|
| b) Throughput targets                           | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| c) Quality of patient care                      | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| d) Research output of the unit                  | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| e) Adherence to standard procedures)            | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| f) Cooperation with other units in the hospital | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| g) Harmony of the unit                          | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |

**4. Indicate your level of agreement with each of the following statements:**

1- Totally Disagree	....	4-Neither agree or disagree	....	7- Totally Agree
------------------------	------	--------------------------------	------	---------------------

- |   | 1                        | 2                        | 3                        | 4                        | 5                        | 6                        | 7                        |
|---|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|
| a) The hospital provides ongoing training to its employees to improve the level of service    | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| b) The hospital provides training to new employees on how to deal with patients               | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| c) The hospital provides training to its employees on ways to improve services to users       | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| d) The hospital employees receive training on how to deal with problems that patients present | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| e) The hospital trains its employees to know how to deal with complaints from users           | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |

**5. Indicate your level of agreement with each of the following statements:**

1- Totally Disagree	....	4-Neither agree or disagree	....	7- Totally Agree
------------------------	------	--------------------------------	------	---------------------

- |  | 1                        | 2                        | 3                        | 4                        | 5                        | 6                        | 7                        |
|--|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|
| a) The government has the responsibility to promote and oversee the development of individual skills of employees  | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| b) The hospital has mechanisms for monitoring and evaluation that support the development of individual skills   | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| c) The performance assessment includes identifying needs and learning opportunities of employees ( eg . , mentors , clinical supervision , incident analysis ) | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| d) Clinical Coordinators are responsible for developing the skills of their employees , as a learning environment  | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| e) There are formal mechanisms that allow employees to engage with the management before and after training  | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| f) There are formal mechanisms for listening to the needs of users that inform the definition of hospital service strategy                                     | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| g) There are formal procedures that allow learning from mistakes   | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| h) The identification of needs for skill development is linked to the definition of a service strategy hospital  | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| i) The hospital conducts satisfaction surveys to employees and disclose the results internally "   | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |

## IMPACT OF DIFFERENT FORMS OF THE FINANCIAL INVESTMENTS ON THE ACCOUNTING SYSTEM.

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### ABSTRACT

The general lack of public resources for the provision of infrastructure has led to the development of different forms of public-private partnerships for investment in the health sector. Next to the project finance, by now reinforced, the use of leasing real estate in construction has grown significantly. Moreover, the contract availability was recently introduced by D.L. the 1/2012. Literally and practically, there are studies that allow neither to understand what tools are more appropriate and convenient for the financing of health investments, nor to evaluate the conditions of application of themselves. For this reason it is important to analyze different tools that can be useful to understand the real essence and conditions of use, in order to find effective and efficient responses to the financing of investment projects in the health sector. In a range of possible tools, definitely the methods of accounting and impact on the public budget are an essential element, especially in the light of the dispositions of Eurostat which, according to "Treatment of public private partnerships" of 11 February 2004, sets out the circumstances in which the assets related to such forms of public-private partnerships can be classified off-balance and therefore have no impact on the public debt. The aim of this paper is to analyze in detail in the context of contracts for public private partnerships, the main instruments for financing public investment: the concession to build and operate-project finance, leasing finance / real estate and contract availability.

**Keywords:** *Public-Private partnership, Project Finance, Leasing contract, Availability contract, Accounting, Health Sector, Ipsas, Finance Investment.*

### CONCESSION TO BUILD AND OPERATE WITH PROJECT FINANCE

The involvement of private capital in the construction of public works and in the management of public services is a worldwide phenomenon that buys every year more and more importance, in spite of the turmoil that cross the international financial markets.

In a first phase, this phenomenon has been identified with the term, Anglo-Saxon origin, project finance, which represents a funding mechanism that is based on the ability of an initiative to repay the debt contract in the construction phase with the cash flows generated by its subsequent management.



From the beginning, this method of financing has represented an important opportunity both to overcome the problem of reducing the public debt, and for the design and management efficiencies that can be achieved thanks to the possibility of risk sharing with operators private and their contribution of know-how (Amatucci, Longo, 2009, p.178).

In the Green Paper on Public-Private Partnerships made public in April 2004 by the European Commission (COM2004\_327), we provide a classification of partnerships based on current practice in member countries, where there is explicit reference to the *partnership contract*, in which the private assumes responsibility for the design, financing, construction and management of public initiative, making fall back upon themselves, in particular, the economic and financial risk.

The elements common to these forms of partnership can be summarized as follows:

- Credit lines long-term (average 25-30 years old), inclusive of planning, financing, management and maintenance of the work, usually without the transfer of ownership to the private sector, which remains an option only for certain contracts;
- Creation and management, through a company set up ad hoc (SPV, Special purpose Vehicle) by private investors, with the possibility of recourse to the financial market independently;
- Financing in whole or in part insured by private entities and by their sponsors and guaranteed by a mechanism of no-recourse, with debt leveraging rather stringent (70-80% of the investment);
- Mechanism of return on investment during the management secured by cash flows generated from the sale of services to citizens (user charges), or by the public, however, linked to the services provided by the operator;
- Engagement of economic and financial risk of the initiative by the private sector.

The concession to build and operate has different models (Amatucci F., 2008, p. 13):

- 1) D.B.O.T. (Design, Build, Operate, Transfer): This is the basic layout of the concession because it involves the design of the intervention and the realization of the work by the dealer; the economic exploitation of the initiative, through the management of the service and the sale to users, and the transfer of the work on the public body at the end of the concession period. As there is no financial intervention by the public, we can use it only for fully self-profitable operation;
- 2) D.B.O.S.T. (Design, Build, Operate, subsidize, Transfer): In this model, due to the insufficient level of charges, during the management phase is added to a government grant as a contribution in cash or ownership or enjoyment of real property;
- 3) D.B.O.S.L.T. (Design, Build, Operate, subsidize, Lease, Transfer): this model is used for the realization of works used and managed directly by the government, which are useful

to the provision of public services. The government pays a periodic fee to the dealer, directly against the project company.

Comparing the benefits of the project (in addition to those outlined above, we can add the alleviation of problems associated with long lead times typical payment contract traditional) we have to reflect on the complexity of the instrument that involves the integration of different skills and needs resources capable of dealing with the legal, technical, financial, contractual initiative. The project finance, in fact, requires the development of specific skills, in order to assess carefully the mode of application and convenience. This phenomenon requires that the government not only plays the traditional role of the buyer but also the role of the most complex and ambitious project manager of public works, to evaluate "ex ante" efficiency and convenience of the instruments, structuring and negotiating transactions the best solutions with private operators, monitoring economic and financial investment, measuring their impact on the territory and their ability to meet the needs of users. Project finance also (and should be stressed), is not the recipe for all situations and should not be overlooked also the situation of a credit crunch, which imposes constraints in access to capital and financing costs certainly higher than forms traditional (Old V., 2012, p. 30).

In the health sector, despite the strong control of the initiatives by the region, companies enjoy greater autonomy in the management of financial resources. In this area we are not seeing the application of a model "pure" project finance (ie without the involvement of both in financial terms and risk-taking by the company public health), but the development of hybrid forms of intervention defined public-private partnerships characterized by a broader engagement between the private and public entities for the realization of the investment (Lecci F., Amatucci F., 2006, p. 690).

In general, we can define a partnership as a collaborative relationship based on the convergence of interests and aims to pursue joint economic and social objectives, from which individual participants indirectly derive individual benefits. A prerequisite for the success of these relationships is, therefore, a significant involvement of the various partners, it is realized with the contribution and exchange of capital, financial resources, scientific and managerial know-how, human resources, distinctive skills, flexibility in organization and managerial and entrepreneurial capacity.

## **LEASING CONTRACT**

Leasing is an atypical financing according to which a party to the lessor allows the lessee to acquire the availability of an asset, instrumental to economic activity, behind the payment of a periodic fee and, at the end of the contract period, to acquire the property through the exercise of the redemption behind the payment of a fee established at the time of conclusion of the contract, which is generally lower than the market value of the property.

This can be traced back to a long-term financing, since it shares the burden linked to the availability of the property over a period of time many years as long as the use of the asset, thus expanding the possible choices and making more efficient coordination of available resources (Amatucci F., 2010).

This operation involves three parties:

- The individual user who, not having the necessary amounts, turns to the leasing company to get a good (movable, immovable, intangible) for a specified period of time during which pays a regular fee and termination of the contract may choose to return the asset, to renew the contract or purchase the goods by paying the redemption price;
- The leasing company that finances the operation. It will target a company to provide you the leased asset;
- The supplying company that will build a work according to the instructions provided by the user company or provide an asset.

Therefore, the leasing company and the supplying company will enter into a contract of sale of goods or contract for the construction of a building, while the leasing company and the user will enter into the leasing contract.

The risks of the operation remain with the user and the property passes to the user only if he exercises the purchase option otherwise remains with the lessor who will extend the maturity of the contract or reallocate well. The lease can be classified into finance leases and operating return (sales and lease back).

A finance lease is included as part of a trilateral at which there were precisely the user / lessee, the lessor / landlord and the company that the availability of good or must build it. In this case, the lessor is a financial intermediary distinct from the producer of the good, which transfers all the risks and rewards of ownership to the lessee. The rent includes in addition to the charges relating to the availability of good even in the depreciation and financial charges. They are not including the cost of maintenance and operation remain as to the lessee.

The rent includes, in addition to the charges relating to the availability of good, even the amount of depreciation and financial charges. the costs of maintenance and operating costs are not included, the lessee pays them.

The goods of the contract may be movable or immovable property typically equipped with high technological content and, if they are available on the market, are produced on the basis of specific instructions of the user. In addition to funding, the lessor may also provide other types of services of a commercial nature (maintenance, service, insurance, ...) to allow a correct and effective use of the leased asset.

An operating lease is made by the same manufacturer that gives enjoyment in a good, generally standardized, for a periodic fee, for a period less than the asset's useful life. At the end of the contract, the product will be redeemed or intended for new uses. This type of contract is particularly useful when the asset is subject to rapid obsolescence of technological progress.

In the sales and lease back, the user / lessee sells its own goods or property to the leasing company that pays a price. At the same time the leasing company enters into a lease agreement with the user about precisely those goods. The assets therefore remain at disposal of the user paying the royalties and the end of the contract may decide to purchase assets.

It may be useful if the user is in temporary financial difficulties.

The government, in recent times, have made use of a particular type of leasing: leasing real estate under construction, introduced in our system with the Finance Act 2007 (L. 27/12/2006, n. 296) and in particular 'art. 1, paragraph 907, which provides that public authorities for the construction, acquisition and completion of public works may also use the leasing contract.

The government, in recent times, have made use of a particular type of leasing: leasing of public property, which was introduced in our system with the Finance Act 2007 (L. 27/12/2006, n. 296) and in particular art. 1, par. 907, which provides that public authorities for the construction, acquisition and completion of public works may also use the leasing contract.

The government should launch a public tender, concerning the implementation of a property through a leasing contract. The competition's purpose is the selection of both the lender that the implementer both in possession of the subjective requirements, technical and economic prescribed by the notice. In the offering, the implementer must define the characteristics and methods of realization of the work as well as its costs, which will be translated into the lease payments.

The award has to be made with the criterion of the most economically advantageous. With the award, the contracting authority will allocate an additional surface rights to the leasing company awarded the contract so that it can provide to carry out the work to the construction company detected already in the tendering process. The contracting authority verifies the correct execution of the work.

The advantages of leasing by public administrations can be so identified (Bisio L., Nicolai M., 2009, p. 310):

- Possibility of financing the investment, the public administration uses the asset without incurring investment costs;
- Credit lines remain the same, making it more available lines of credit;
- Procedural simple: with the same race the government chooses the leasing company and the manufacturer;
- The entity pays the royalties, after testing when it is fully available to the well;

- The periodic payment of fees allows the sharing of the cost over several years;
- The fee is an expense as incurred and does not contribute to the achievement of the debt limit as opposed to the interest on loans and bonds;
- Simplification of accounting, you have to account only the fee;
- At the end of the period there is a possibility not to redeem the good of replacing an asset with more innovative more efficient;
- It is essential that the risks remain charged to the private sector (construction risk, project, time, ...).

The circular of the Council of Ministers on 27 March 2009, which incorporates the Eurostat decision February 11, 2004 provides that the assets, subject to such operations are not recorded in the accounts of public administrations, for the calculation of net debt, only if there is a substantial transfer of risk from the public to the private. This happens if the private entity assumes the risk of building and at least one of the two risks: availability or demand.

The construction risk concerns events associated with the design phase and construction of the infrastructure such as, for example, late delivery, non-compliance with predetermined standards, additional costs, technical deficiencies, negative externalities, including environmental risk.

The availability risk relates to the operational phase, and it is connected to a poor or inadequate management of 'public work, following which the quantity and / or quality of the service provided are below the levels provided for in the contract. This risk can be considered on the private individual if the government payments are related to the effective attainment of the service rendered.

The risk of demand, however, is the typical risk related to the use of the work (or related service) by the end user.

The development of the instrument has been slowed due to three main factors (Marsilio M., 2006, p. 124):

- the absence of specific legislation, which has raised doubts regarding the real estate leasing as to its compatibility with the laws on public works, and with the principles on transparency and competition from public procedures;
- the partial knowledge of the public operators of its characteristics and potential applications as compared to other possible solutions for financing and realization of investments;
- the reluctance shown by the operator in the industry to offer solutions for the needs of public administration other than the models offered to private companies;
- substantially more expensive than a medium-term loan.

## AVAILABILITY CONTRACT

The liberalization decree (D.L. 1/2012) has introduced the contract availability, a new instrument of public- private partnership.

By means of such a contract are assigned, at the risk and expense of the fiduciary, the construction and availability in favour of the contracting authority of a work intended for the exercise of private property for a public service, in view of a compensation. The contract fiduciary at their own risk has to plan, support, and carry out the work intended for a public service, guaranteeing the public administration client, the constant availability, and the perfect maintenance and management.

As indicated in art. 160ter of D. Decree 163/2006 (Code of Public Contracts), the public administration has to remit (pay out) to the fiduciary a monthly periodical payment in order to benefit from the availability of these facilities. This payment will be totally filled if its use is complete, but it will be proportionally reduced or cancelled during periods of decreased or no availability of the public administration for maintenance, defects or any other reason not evaluated (considered) among the risks at the expense of the contracting authority, allowing the public administration to fully transfer the risk of availability to the private entity.

Any contribution can be paid in the process, just in case the government intends to acquire ownership of the property at the end of the contract. The payment can not exceed the limit of fifty percent of the value of the work in order to meet one of the indicators reported by Eurostat.

In this case it is possible to pay a redemption or transfer price. Such a price has to coincide with the residual market value of the asset (Ricci P., 2005) taking in account both paid fees and any public contribution supplied during the asset construction.

Through the contract availability, the public entity can have available real assets for a long period without being dependent on a leasing company and raising the liabilities of the balance sheet, so as to avoid increasing the national debt. In fact, the property of the work, which is realised by the contract fiduciary, is private even if aimed at the management of a public service.

The advantages of such a contract are:

- the focus is on the availability of the work from the public, not on the property itself. To provide a public service is no longer necessary to increase public property, but it is possible to turn to the market in order to use a private work;
- the government has no risk associated with the realization of the work (perfectly in accordance with the Eurostat principles);
- all risks concerning ordinary and extraordinary maintenance of the property are at the expense of the fiduciary ( this aspect is also in line with the principles Eurostat);

- given the private nature of the work, the contract can not concern properties that have to be realised on state property, such as roads, cemeteries, ports, prisons. On the contrary such a contract is compatible with the realization of real estate areas in order to put within public offices, directional complexes, exhibition space, affordable and popular housing. When the public administration is not suppose to acquire the ownership of the work, the contract availability finds its ideal application in those contexts where the service is performed for a limited time. Conversely, where it is expected the final redemption, the pattern bargaining will present several similarities with the leasing under construction and will be particularly suitable for the creation of works aimed at developing essential and continuing services.

The contract availability could be confused with the availability of an operating lease, which relates to the provision of the conductor of an asset that is usually available to the lessor, who is obliged to provide further services connected with perfect efficiency of the asset (maintenance, etc.) upon payment of the fees. However, the operating lease relates to goods that have a rapid economic obsolescence (such as. Transportation, computer equipment, etc.). Indeed, such goods are designed to meet temporary needs of the user, who does not want to take the risk (and cost) related to the rapid deterioration of the good themselves. The contract availability assumes instead that the estate (presumably the real estate ) specified in the contract has to meet enduring needs, even if not permanent.

## **ACCOUNTING MODALITY ACCORDING TO THE NATIONAL AND INTERNATIONAL ACCOUNTING STANDARDS**

After analyzing the main characteristics of the different types of partnership, it is essential to reflect upon the accounting modality for such forms of financing investments in the Italian health sector: an analysis of the impact on the accounting system in the context of the national and international accounting standards. As earlier highlighted, the use of PPP was mainly driven by the limits imposed by reducing the public debt and the cutting transfers. However, the accounting framework is rapidly evolving and therefore it needs a clear institutional position (Borgonovi E., 2012, p.13).

The principal element of the project finance transaction is the presence of a special purpose entity, which can take different legal forms and institutional arrangements, such as joint stock companies, limited liability company, foundation. A special purpose entity concerns itself with the design, financing, implementation and management of the work.

Its significant element is the economical, legal and financial separation from its promoters, so as to avoid the confusion of liabilities and assets related to the project. The establishment of the project company also makes possible to differentiate the project finance transactions (the group of companies

is the project company) from the traditional concession (where there is no this kind of constitution) (Emperors G., 2003, p. 33). Relating to the operation of concession project finance, it is possible to have two different procedural schemes, depending on the degree of the public administration intervention: public model of a low resolution (procedure with promoter), in accordance with the 'art. 153 del Codice dei Contratti' and model high-definition public conforming to the 'art. 143 del Codice dei Contratti'.

In the first model, the essential elements of the operation are defined by the Public Administration and are placed at the base of the subsequent public competition for award of the concession. In second, the administration merely defines a general diagram about the operation, leaving the private entity (promoter) to identify the operation, reserving only the right to evaluation of the proposal (Old V., 2008, p. 35).

The weakness of the Italian regulatory framework is the overlap developed in the last years between legal procedures for the selection of private operators which enter into PPP contracts and the contractual and financing instruments that can perform operations of PPP.

The procedure conforming to the art. 153 del D. Lgs. 163/2006 is indicated as project finance, even if it does not require the establishment of the project company, which, instead, is crucial for the project financing of an investment. In accordance with the art. 143 of the same Code, the grant is regulated, but it is not specified if this procedure can also be used to realize transactions of project finance (Vecchi V., Borgonovi E., 2012 p.3).

Therefore, the Italian regulatory framework is the result of progressive layers to take into account the experience and the positions of different stakeholders.

However, it could be introduced into the code of contracts an article so as to put order and summarize, to set out the legal procedures, contractual arrangements and the financial instruments that can be used in order to create and manage public works and infrastructure through PPP forms precisely in Italy, where, because of high public debt accumulated, there should be the interest in finding mechanisms to conceive, PPP transactions that could be classified as *off balance*.

Indeed, in Italy the uncertainty about the possible impact on the public finances of operations as well as considered strategic, has caused the abandonment of such transactions, to the obvious detriment to the growth and recovery of competitiveness of the country itself.

At European level it is worth mentioning some important updates published on the website of Eurostat, ESA95 Manual. They are on the government deficit and debt, with particular reference to Chapter VI.5 about the "Public Private Partnerships (PPPs)", which are essential in order to emphasize its complex elements of understanding and evaluation.



The aim of the rules dictated by Eurostat for PPPs is to offer services to public administrations the opportunity to realize public works, placing them out of their budget.

In particular, the assets in such contracts are not classified as public assets and, therefore, they are not recorded in the national budget if there is a substantial transfer of the project risks to the private.

Eurostat, also in the last version of the 'Manuale' has left the risk criterion as basic parameter to take the decision about the statistic and accounting treatment of the PPP operations.

Specifically, it is pointed out that in case the private partner bears the development risk and at least one among the availability and demand ones, the infrastructure object of the PPP contract could be classified by the administration as “non government” and accounted as *off balance* (modello risk & reward) (Vecchi V., Borgonovi E., 2012, p. 13). In this last version, apart the gather indications from risks analyses, taking into account any mechanism (public funding of the investments, public guaranteeing, contract expiring clause in particular favor of the authority in case of termination in advance, etc.) according to which the public partner takes the most part of the risks in the project, it is clearly indicated that the realised asset will be classified *on balance*.

At an international level, then, the important *The International Public Sector Accounting Standards Board* (IPSASB has approved a standard, '*Accordi per servizi in concessione: Concedente*' - IPSAS 32).

The accounting standard, governs the accounting treatment of concessions in public budgets, providing a substantial alignment with the accounting suite (IFRIC 12), in force since 2010 (Technical Unit Project Finance, 2012).

The accounting standard, governs the accounting treatment of concessions in public budgets, providing a substantial alignment with the accounting suite (IFRIC 12), in force since 2010 (Technical Unit Project Finance, 2012).

In substance, the IPSAS 32 is applied when the government has the hold on the infrastructure (principle of *control*), in other words when (art.9):

- it controls or regulates what services the operator should provide through the licensed infrastructure, to whom the service has to be provided and at what price;
- it holds a significant residual interest in the asset at the end of the concession.

In the above mentioned cases, the infrastructure concession has to be considered *on balance*, in other words it will have to be recognized in the public balance sheet at fair value and, in return, a debt will be recognized. The licensed operations allow the opportunity, in general to the governments and the public sector, to build the infrastructure necessary to maintain and improve key public services.

The use of these tools continues to increase because of the current global financial and economic crisis, and the possibility to rely on such a standard is important because, until now, the public sector has not had an international guide relative to these kinds of transactions. The lease is accounted for by

applying the international accounting standards for the public sector IPSAS 13. This principle separates the financing lease from the operating one, according to the lessor or lessee attribution of the risks and the benefits related to the property of the asset.

A financing lease is a contract that conveys to the lessee all the risks and benefits of the property, independently from the passage of title on the property, according to which the accounting method is applied to the financing lease and the equity method to the operating lease.

## **THE ACCOUNTING FINANCIAL METHOD**

This method applied to the finance leases ratifies that the asset is written when the delivery takes place in the balance sheet of the user. In accordance with the prevalence of substance over form, the lease has to be considered as a purchase of fixed asset.

### Contract stipulation

At the stipulation of the lease, the user has to register in the balance sheet the leased asset as activity and the corresponding amount in liabilities as debt.

This amount is the lower current value of the leased asset at the time the lease starts and the present value of minimum lease payments under the lease.

The present value of the payments has to be made using the implicit interest rate, in other words the rate that allows to match, at the beginning of the lease, the total present value of the minimum lease payments for the lease and of the no guaranteed residual value according to the current value of the leased asset.

If the leasing real estate is under construction, the registration of the property should be done during the trial, in other words when the tenant takes possession of the property.

### Rental payments for the duration of the contract

The paid fee is composed of a share capital value which will reduce the overall debt recognized in the liability of the balance sheet and of a share interests that instead will be recognized as financial interest expense on the revenue account.

### Depreciation of the asset

The value of the asset is depreciated according to the criteria laid down in the beginning IPSAS 17 for depreciable assets that are owned. The depreciation expense has to be ascribed for the entire period of use. If there is reasonable certainty to exercise the right of redemption at the end of the lease, then the expected period of use and therefore depreciation will coincide with the asset's useful life, otherwise it will refer to the duration of the contract.

### Redemption of the asset

If the redemption price is included in the initial value of the asset, at the end of the contract no writing will have to be detected. In the opposite case an increase in assets of an amount equal to the paid price will be detected, this value amortized over the remaining life of the asset.

## THE ACCOUNTING PROPERTY METHOD

The property method applied to the operating lease provides that the leased assets are amortized and recognized in the lessor. In the financial statements of the user the rents paid periodically under the heading "Costs for use of third party beautiful" in the income statement have to be noticed.

No detection should be carried out in the memorandum accounts given that the contractual risks bear upon the lessor and the lessee may revoke the commitment of returning the asset. Instead, with adequate advance notice (Bonacchi M., Ferrari M., 2007, p. 67), it will have to be provided in the notes to the point 9) sufficient information to assess the exposure in terms of commitments and their relevance for the clarity and transparency of the balance sheet (Principle OIC 12 note 47). Only when the user acquires legally the property, the asset will be recorded in fixed assets in the balance sheet and amortized over the period of service life remaining.

The transaction arising from the contract availability, given the absence of a specific discipline and given its nature, can be treated as a traditional contract of "expenses for leased assets to third parties", and then, treated similarly to operating lease. In terms of the allocation of risks, the contract availability complies with the requirements of Eurostat so as a PPP may be considered *off-balance*: in this case the risk both of construction and availability are allocated to the private partner.

The public user will have to notice in the revenue account, under the heading "Costs for use of third party assets", the amount of the periodic fees paid to the company which benefits from the contract availability. In the memorandum accounts will be recorded the value of the used asset, the amount of commitments for future payments to be paid to the company, and the expected price for the eventual redemption. Only if the public administration decides to exercise the purchase option and so to transfer legally the property of the asset, the latter may be included among the assets of the balance sheet and amortized throughout the remaining years of service life.

## CONCLUSION

After analyzing the three instruments, in this study have come up some critical elements that have to be investigated in the choice of how to finance investment in the health sector. By analysing the impact in the balance sheet of those financial instruments evaluated in range of the financial system and the economic-sheet, it has come up that the latter allows to operate a economic and financial control really important to the instruments, whose impact escapes the traditional balance sheet.

However, the analysis shows how the accounting method, especially in our country, is not the critical factor in choosing the most appropriate means to finance public investments, particularly those that are most impacted on the budget. Only the integrated analysis of the different assessments (economic, financial, equity) with other corporate variables (such as cost effectiveness, risks of the operation, complexity of use, margins and rigidity future action) allows the public decision-maker to choose the financial instrument most appropriate and consistent with the type of investment to do.

Of course, the correct use of these tools and the complete evaluation of their impact on the long-term corporate economy is possible only when the economic accounting balance sheet is adopted.

The financial system alone does not allow to capture the different aspects of complex and innovative evaluation tools such as forms of public-private partnerships. In the evaluation of the different instruments, the most critical element is represented by the allocation of risks between the public and the private entity. Indeed, the substantial difference between the three instruments is realized in the establishment of a project company, Project finance, which assumes the risks even after the delivery of the property. However, in the real estate leasing and contract availability is not expected the establishment of a specific legal institution, so that to pass in part the risks previously assumed to the public administration. This could create a substantial discrepancy between the three instruments: the first (project finance) aimed at the realization of the work and the transfer of risk to the private entity (construction, but also management and demand), even after the delivery of the work; second and third (real estate leasing and contract availability) aimed at the mere construction of a work, funded through the payment of the leasing fee / availability.

In conclusion, if from the accounting point of view there are no significant differences between the instruments, legally it is desirable that the legislator brings back the procedures relating to the three instruments to a single path so that the procedural variable does not distort the comparison between similar instruments (as is the case in other countries). Therefore, the application of project finance, leasing, and contract availability can not result from a priori choice but from a legal and financial economic analysis.

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## MODELING THE NUMBER OF CREDIT CARDS HELD BY ITALIAN HOUSEHOLDS: A PANEL DATA APPROACH

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### ABSTRACT

Credit cards, both as mean of payment and borrowing, rise many economic issues. Firstly, the credit card industry can be viewed as a two-sided network industry characterized by externalities that could harm competition. Particularly, the fact that consumers hold or use credit cards from multiple networks is known as 'multi-homing' and in some theoretical models is of great importance in determining the outcome of the industry. Moreover, some studies show that the multiple credit cards can be seen as a device to access to more financing, making family bankruptcy more likely. In this paper we model the number of credit cards held by a panel of Italian household over the period 1991-2010 using demographic, socio-economic and geographical variables as potential predictors and panel data techniques for count data. Our estimates show that such variables are suitable in explaining the credit card ownership.

**Keywords:** *Credit cards, Panel data, Count-data models*

### INTRODUCTION

A credit card is a system of payment since it allows the cardholder to pay for goods and services without using cash. This presupposes that the card issuer has granted a line of credit, mostly uncollateralized, from which the user borrows to either pay to the seller or withdraw cash from an ATM. In case of revolving credit card, the cardholder does not pay his balance in full each month, but in installments and the issuer charges an interest rate.

These characteristics of credit cards entail many economic issues. Firstly, from an industrial organization perspective, the credit card industry can be viewed as a network industry, like electricity supply, telecommunications and railroads (Economides, 1996). In fact, the participation of a new economic agent to the network involves positive externalities for other participants.

More precisely, credit cards are two-sided network goods (Rochet and Tirole, 2004; Rysman, 2009) as the benefits for the users depends on the number of sellers in the network and, similarly, the benefits

for the sellers increase with the number of the users (Chakravorti, 2003). In turn, these network effects give rise to competition policy issues (Carlton and Frankel, 1995; Lemley and McGowan, 1998).

In this context, the fact that consumers hold or use credit cards from multiple networks is known as “multi-homing” and in some theoretical models it is of great importance in determining the outcome of the industry (Rochet and Tirole, 2003; Guthrie and Wright, 2007). Empirically, however, it is not clear what should be intended for multi-homing (Snyder and Zinman, 2008). More precisely, two issues arise. First, one should establish whether what matters is merely the possession of multiple credit cards or even their actual use. The second question concerns the substitutability between debit cards and credit cards in deciding whether a given cardholder is a multi-homer or not.

Secondly, since credit cards allow borrowing without applying for personal loans, there exists an incentive in building up large debts (Loke *et al.*, 2011). Probably, the sharp increase in bankruptcy filing rates in the United States from 1980 to 2004 has been due to the growing credit card debt of families (White, 2007). Castronova and Hagstrom (2004) model the credit card demand as a two-stage decision: first, cardholders obtain the right to borrow within a certain limit; then they borrow a fraction of that limit. Using the Survey Consumer Finances as data source, they conclude, among other things, that consumer who want to borrow more do not apply for an higher limit, but hold more credit cards. Thus, the multiple credit cards can be seen as a device to access to more financing.

Although borrowing by means of credit cards could seems irrational, given the high interest rates charged and the large profits earned by issuers (Ausubel, 1991), some authors have maintained that this behavior is nonetheless consistent with economic theory (Zywicki, 2000). Brito and Hartley (1995) show that consumers could be willing to pay high interest rates on credit card debts in order to avoid the costs of bargaining with financial institutions or those associated with precautionary money holding.

If so, another apparent contradiction emerges. Data show that many consumers simultaneously hold costly credit card debts and low-return liquid assets, so that it would be rational to repaying their outstanding balances (Gross and Souleles, 2002; Telyukova and Wright, 2008). However, this action (known as “co-holding”) can be explained as an attempt to self-control compulsive buying or the need to complete transactions for which a credit card cannot be used (Gathergood and Weber, 2013).

In the light of these considerations, it is of interest to study the factors affecting the choice of holding multiple credit cards. On one hand this could be a first step toward a more in deep understanding of multi-homing.<sup>1</sup> On the other hand, the factors influencing the number of credit cards held could help in predicting family bankruptcy and explaining the “co-holding” phenomena. Besides our results could be of help in designing marketing strategies by firms operating in such market, aiming to capture new consumer segments.

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<sup>1</sup> The two concepts are not overlapping but clearly multiple credit cards are a necessary, although not sufficient, condition for multi-homing.

In the literature, several econometric techniques have been used to model the credit card ownership of individuals or households. If the focus is on the choice between to use or not use credit cards, the natural choice is the logit or probit models (Yayar and Karaca, 2012). Other studies, such as (Pulina, 2011), try to identify the factors affecting the type of credit card used by means of a multinomial logit model. When data on the number of credit cards held are available, several authors (Kinsey, 1981; Chien and Devaney, 2001; Tan *et al.*, 2011) have used the tobit model. However, since the variable under consideration is a nonnegative integer, it can be better to resort to count data models as, for example, in (Loke *et al.*, 2011).

Particularly, for the first time in the literature, we employ panel data techniques for count data. In this context, modeling heterogeneity is quite important since there is no theory to guide the choice of variables affecting the number of credit card held.

Our aim is to investigate the determinants driving the credit card ownership and analyse the implication of socio-economic, demographic and geographic variables in the card payment system. We estimate several Poisson regression models and compute the marginal effects of the covariates on the number of credit cards held. The data used in the empirical analysis come from several waves of the Survey of Household Income and Wealth (SHIW) conducted by the Bank of Italy. We found that factors such as age, income, wealth, sex, geographic location, education and marital status are effective in explaining the number of credit cards held by Italian household.

The paper is organized as follow. The next section illustrates the econometric models used, while Section 3 is devoted to the description of data and variables. Results are presented and discussed in Section 4. Finally, the last section draws some conclusions.

## ECONOMETRICS

A very commonly used technique for modeling count data is the Poisson regression.<sup>1</sup> Given a set of  $N$  independent observations  $(y_{it}, \mathbf{x}_{it})$  where  $y_{it}$  is a count and  $\mathbf{x}_{it}$  is a vector of covariates, assume that  $y_{it}$  given  $\mathbf{x}_{it}$  is distributed as a Poisson, that is

$$f(y_{it}|\mathbf{x}_{it}) = \frac{e^{-\mu} \mu^{y_{it}}}{y_{it}!} \quad (y_{it} = 0, 1, 2, \dots). \quad (1)$$

The conditional mean is parameterized as

$$E(y_{it}|\mathbf{x}_{it}) = \mu_{it} = \exp(\mathbf{x}_{it}'\boldsymbol{\beta}), \quad (2)$$

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<sup>1</sup> For an introduction to count data models, see Cameron and Trivedi (1998) and Long and Fresse (2001).



where  $\beta$  is a vector of parameters to be estimated.<sup>1</sup> Since  $Var(y_{it}|\mathbf{x}_{it}) = E(y_{it}|\mathbf{x}_{it}) = \mu_{it}$ , the model is heteroskedastic. It can be easily estimated by maximum likelihood.

The equality between the mean and the variance of the Poisson distribution, also known as equidispersion property, is very often rejected by data, since the variance exceeds the mean. One simple solution to this problem is to use robust standard errors. Then, first we estimated a Poisson regression on the pooled sample.

With the estimated parameters at hand, marginal effects can be calculated. The effect of one-unit change in the  $j$ -th regressor on the conditional mean, evaluated at the sample mean of the covariates, is given by

$$MEM_j = \frac{\partial E(y|\mathbf{x})}{\partial x_j} = \beta_j \exp(\bar{\mathbf{x}}' \beta). \quad (3)$$

A better approach (Bartus, 2005) is to use (7) (with  $\mathbf{x}_i$  in place of  $\bar{\mathbf{x}}$ ) to compute the marginal effect over all individuals and then taking their average, that is

$$AME_j = \frac{1}{N} \sum_{i=1}^N \beta_j \exp(\mathbf{x}_i' \beta). \quad (4)$$

Besides, for a dummy variable, one should use the finite difference method. In this case the marginal effect is the change in the conditional mean when the variable changes from 0 to 1. Formally, let  $\mathbf{x}_i = [\mathbf{z}_i' d_i']$  and  $\beta = [\beta_z' \beta_d']$ , where  $d_i$  is the dummy variable. Then

$$AME_j = \frac{1}{N} \sum_{i=1}^N \{\exp(\mathbf{z}_i' \beta_z + \beta_d) - \exp(\mathbf{z}_i' \beta_z)\}. \quad (5)$$

If the assumption of independence of  $y_{it}$  is relaxed, one can resort to the population-averaged Poisson regression in order to model the correlation  $\rho_{ts} = \text{Cor}\{[y_{it} - \exp(\mathbf{x}_{it}' \beta)][y_{is} - \exp(\mathbf{x}_{is}' \beta)]\}$ . We estimated this model assuming  $\rho_{ts}$  can vary freely between  $t$  and  $s$ . Even in this case, we used robust standard errors to cope with overdispersion.

Modeling the heterogeneity of the cross-sectional units (households) calls for panel data models. In this case, including an intercept for each cross-sectional unit, the conditional mean is parameterized as

$$E(y_{it}|\alpha_i, \mathbf{x}_{it}) = \exp(\gamma_i + \mathbf{x}_{it}' \beta) = \alpha_i \exp(\mathbf{x}_{it}' \beta) \quad (6)$$

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<sup>1</sup>Note that, by (2),  $\mu > 0$ .

where  $\gamma_i = \ln \alpha_i$ .

The standard random-effects model assumes that  $\alpha_i$  is distributed as a Gamma with mean 1 and variance  $\eta$ . As an alternative, one can assume that  $\gamma_i = \ln \alpha_i$  is normally distributed with mean 0 and variance  $\sigma_\alpha^2$ . We estimated both models, using bootstrapped standard errors based on 100 replications, again to take into account the possibility of overdispersion.

If the individual effects are not random, but additional parameters to be estimated, one obtains the fixed-effects model. One shortcoming of this model is that it does not allow time-invariant covariates. Since most regressors discussed in the next section have this characteristic, we did not consider the fixed-effect model.

## DATA AND VARIABLES

The data used in this study come from the Survey of Household Income and Wealth (SHIW) conducted by the Bank of Italy since 1977 and every one or two years.

The survey involved about 8000 households in each wave, which were representative of the Italian population. The respondent was the head of the household, who supplied information on composition of the family and the socio-demographic characteristics of its members, employment, income and consumption, wealth, use of the payment instruments and relationship with the financial intermediaries. While some questions concern every member, some others involve the household as a whole.

Due to lack of data, we limited our analysis to the period 1991-2010, during which nine waves have been carried out. We also excluded households for which less than three observations were available. The final sample consists of 26340 observations on 6279 households. The panel is unbalanced, and includes about 4 observations for each household.

The variables drawn or constructed from the dataset<sup>1</sup> are described in Table 1, while their descriptive statistics are shown in Table 2 and 3.

CRECAR is the number of credit cards held by the household and represents our dependent variable. On average, each family in the pooled sample holds 0.36 credit cards. However, about 75% of the sample has no credit cards, while a large portion (about 23%) holds one or two. The maximum number of credit cards held is 10. The variable is overdispersed, since its variance is equal to 0.73.

As regressors we consider two distinct sets of variables.<sup>2</sup> The first set includes the following variables:

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<sup>1</sup>The dataset is freely available at <http://www.bancaditalia.it/statistiche/indcamp/bilfait/dismicro>.

<sup>2</sup> Before proceeding, it is worth noting that CRECAR is available only at a family level, while most of the variables we are going to discuss in the text concern the head of household (see Table 3). Then we are assuming that the

- the age of the head of household (AGE). It is expected that households whose head is older held more credit cards. However, behind a certain threshold value the relationship should invert and become negative. To test this hypothesis, we include the square of AGE (labelled as AGESQ) as an additional regressor;
- the number of the household members (NCOMP). Larger families are likely to own more credit cards, so the expected sign of the corresponding coefficient is positive;
- household net wealth (WEALTH). A larger wealth should reflect a higher standard of living and thus the propensity to hold more payment instruments. Moreover, for wealthy people, increasing the number of credit cards held could be a way of showing their social status (Gan et al., 2008). Then we expect a positive coefficient for this variable;
- the household net disposable income (INCOME). Households that earn more should fulfill the income requirement for credit card eligibility more easily, so it is expected that this variable positively affects the credit card ownership.

The second set of covariates aims to capture the effect of geographic and other socio-demographic factors and consists of the following groups of dummy variables:

- *Geographic location* (NORTH, CENTRE and SOUTH). This group of dummies records the location where the household resides. As it is well known, in Italy the level of social and economic development reduces going from North to South. Thus, assuming NORTH as the reference group, we expect the sign of the SOUTH coefficient to be negative, that is households located in the southern regions should possess less credit cards. By the same reasoning, the CENTRE variable should negatively impact on the number of credit cards, but its effect should be lower in magnitude;
- *Municipality size* (SMUN, MMUN, LMUN). These variables consider whether a given household resides in a small (up to 40,000 inhabitants), medium (from 40,000 to 500,000 inhabitants) or large (more than 500,000 inhabitants) municipality, respectively. Considering SMUN as reference, both MMUN and LMUN coefficient are expected to be positive, since living in a more dynamic social and economic environment - as it occurs in larger cities - should foster the credit card ownership;
- *Sex* (MAL, FEM). Both variables are either zero or one depending on the gender of the family head, being MAL the omitted category. The sign of the FEM coefficient is not a priori determinable;
- *Education* (NSC, CSC, HSC, BDP). By means of this group the effect of education is considered. The head of family could have no education (NSC), attended the compulsory school (CSC),

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latter variables give a good description of some characteristics of the household considered as a whole. This seems to us to be a better solution with respect to resort to some index based on all family members' data.

hold a high school diploma (HSC) or attained a Bachelor/post-graduate degree. Again, considering the first variable as the reference group, the coefficients of the remaining dummies should exhibit a positive sign. Indeed, more educated individuals are expected to be more confident in using a larger number of credit cards and managing additional bills;

- *Marital status* (MAR, SIN, SDW). Here we take into account whether the head of family is married (MAR), single (SIN) or separated/divorced/widower/widow (SDW). Married people could possess multiple credit cards in order to manage the family balance sheet more efficiently. On the other hand, not married individuals (especially singles) could be more prone to credit card ownership because of a more free lifestyle. Thus for this variables we have no a priori knowledge about the sign of their coefficients. As before the omitted category is the first one (MAR).

Summing up, and jointly considering the reference groups defined above, the “base” head of household is a married male, with no educational qualification and living in a small municipality located in the North of the country.

Moreover, on the basis of the figures reported in Table 3, we can state that in 2010 the most frequent profile in the sample is a married male, who has completed the compulsory school and residing in a small sized city of northern Italy.

Variable	Description
CRECAR <sup>a</sup>	Number of credit cards held by the family members (dependent variable)
AGE <sup>b</sup>	Age of the head of household
NCOMP <sup>a</sup>	Number of the household members
WEALTH <sup>a</sup>	Net wealth (real assets + financial assets - financial liabilities)
INCOME <sup>a</sup>	Net disposale income of the household
DUMMY VARIABLES	
<i>Geographic location<sup>a</sup></i>	
NORTH*	North
CENTRE	Centre
SOUTH	South
<i>Municipality size<sup>a</sup></i>	
SMUN*	Small municipality (up to 40,000 inhabitants)
MMUN	Medium municipality (from 40,000 to 500,000 inhabitants)
LMUN	Large municipality (more than 500,000 inhabitants)
<i>Sex<sup>b</sup></i>	
MAL*	Male
FEM	Female
<i>Education<sup>b</sup></i>	
NSC*	No educational qualification
CSC	Compulsory school degree
HSC	High school degree
BDP	Bachelor's degree or post-graduate qualification
<i>Marital status<sup>b</sup></i>	
MAR*	Married
SIN	Single
SDW	Separated/divorced or widower/widow

<sup>a</sup>Variable (or group) refers to the household as a whole.  
<sup>b</sup>Variable (or group) refers to the head of household.  
\*Reference group.

Table 1. *Description of the variables*

Variable	Mean	Std. Dev.	Min.	Median	Max.
CRECAR <sup>a</sup>	0.36	0.73	0	0	10
AGE <sup>b</sup>	56.65	14.37	20	56	98
NCOMP <sup>a</sup>	2.81	1.31	1	3	12
WEALTH <sup>c</sup>	0.28	0.5	-0.64	0.17	28.56
INCOME <sup>d</sup>	41.62	32.11	-75.68	34.08	811.09
Observations	26340				

<sup>a</sup>Units – <sup>b</sup>Years – <sup>c</sup>Millions Euro - <sup>d</sup>Thousands EuroTable 2. *Summary statistics*

Variable	Obs.	Perc.
<i>Geographical location</i>		
NORTH*	1341	48.8
CENTRE	517	18.8
SOUTH	890	32.4
<i>Municipality size</i>		
SMUN*	1369	49.8
MMUN	1212	44.1

LMUN	167	6.1
<i>Sex</i>		
MAL*	1735	63.1
FEM	1013	36.9
<i>Education</i>		
NSC*	111	4.0
CSC	1617	58.8
HSC	744	27.1
BDP	276	10
<i>Marital status</i>		
MAR*	1779	64.7
SIN	248	9.0
SDW	721	26.2
Total	2748	100

\*Reference group

Table 3. *Dummy variables summary statistics – year 2010*

## EMPIRICAL RESULTS AND DISCUSSION

Using the data set described above, the pooled, population-averaged and random-effects Poisson (both with gamma and normal distributed intercepts) regression models have been estimated by means of maximum-likelihood. Results are reported in Table 4.

In all models, most parameters are highly significant. Moreover, standard errors are quite similar. Thus, in discussing results we will focus on the random-effects model with normally distributed intercepts.

The coefficient of AGE is positive, while that of AGESQ is negative, which implies an inverted U relationship between the age and the number of credit cards. Put differently, this means that the number of credit cards held increases as age increases, but only up to a certain value, from which it decreases. From the estimated coefficients, this value is equal to  $0.1068/(2 \cdot 0.0011) = 48.55$ .

Variable	Pooled	Population-averaged	Random-effects (Gamma)	Random-effects (Normal)
Constant	-5.5329*** (0.3946)	-4.9782*** (0.3546)	-6.0974*** (0.3972)	-6.6682*** (0.4102)
AGE	0.0918*** (0.0111)	0.0817*** (0.0113)	0.1023*** (0.0095)	0.1068*** (0.0101)
AGESQ	-0.0010*** (0.0001)	-0.0009*** (0.0001)	-0.0010*** (0.0001)	-0.0011*** (0.0001)
NCOMP	-0.0402* (0.0211)	0.0329 (0.0217)	0.005 (0.0194)	-0.0083 (0.0203)
WEALTH	0.0436** (0.0219)	0.0539*** (0.0122)	0.0877*** (0.0226)	0.0892*** (0.0219)

INCOME	0.0041*** (0.0006)	0.0030*** (0.0006)	0.0039*** (0.0005)	0.0039*** (0.0005)
<i>Geographic location</i>				
CENTRE	-0.1841*** 0.0462	-0.1980*** 0.0544	-0.2546*** 0.0476	-0.2406*** 0.0516
SOUTH	-0.6732*** (0.0518)	-0.7069*** (0.0573)	-0.8611*** (0.0541)	-0.9443*** (0.0598)
<i>Municipality size</i>				
MMUN	0.1045*** (-0.0394)	0.1482*** (-0.0441)	0.1372*** (-0.0426)	0.1380*** (-0.0475)
LMUN	0.1662*** (0.0633)	0.2533*** (0.0697)	0.1682*** (0.0623)	0.2119*** (0.0720)
<i>Sex</i>				
FEM	-0.0583 (0.0518)	-0.0502 (0.0572)	-0.1248** (0.0510)	-0.1172** (0.0545)
<i>Education</i>				
CSC	2.1327*** (0.2889)	1.5414*** (0.1985)	2.0705*** (0.3083)	2.0069*** (0.3102)
HSC	3.2014*** (0.2906)	2.3281*** (0.2019)	3.0708*** (0.3068)	3.1227*** (0.3107)
BDP	3.4304*** (0.2932)	2.7008*** (0.2036)	3.4425*** (0.3105)	3.5728*** (0.3175)
<i>Marital status</i>				
SIN	-0.4097*** (0.0810)	-0.1721** (0.0741)	-0.2521*** (0.0648)	-0.2909*** (0.0718)
SDW	-0.3779*** (0.0711)	-0.2980*** (0.0809)	-0.3341*** (0.0645)	-0.3477*** (0.0690)

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Significant at: \*\*\* = 1% level; \*\* = 5% level; \* = 10% level.

Standard errors of the parameters in parentheses.

Reference groups: NORTH, SMUN, MAL, NSC, MAR.

Table 4. *Estimation results – Dependent variable: CRECAR*

Average marginal effects (AME) are shown in Table 5. For AGE the AME is -0.0131, which means that, on average, one more year of age is associated with 0.0131 fewer credit cards. Thus the impact of the

age on the credit card ownership is fairly small.<sup>1</sup> The NCOMP parameter is not significant, meaning that the number of credit cards is unaffected by the household size. Maybe, this variable would be better measured if it was net of the number of children in the family. Actually, they are not legally able to own a credit card.

The household net wealth (WEALTH) is significant and, as expected, it exerts a positive effect on the quantity of credit card. The magnitude of the marginal effect, however, is negligible: if wealth increases by one million, then number of credit cards increases by only 0.0892.

The number of credit cards also increases with income (INCOME) by 0.0039 for each additional thousand euros or, which is the same, by 4 for each million euros. Thus, when considering the economic well-being of households, the decision on how many credit cards to hold seems to be driven mainly by income, although its effect is not so high.

Turning to the dummy variables included in the model, those associated to the geographic location (CENTRE and SOUTH) are both strongly significant and negative, confirming that, as one moves from North to South along the country, households tend to hold fewer credit cards. As already noted, this can be explained by the lower level of socioeconomic development prevailing in the southern part of Italy. Particularly, households living in the South own 0.9443 fewer credit cards than those residing in the North (which represents the reference group). The same applies to families located in the central Italy, but the effect is much lower (0.2406).

Among the variables recording the size of the municipality where the household lives, MMUN and LMUN, they are both significant and shows a positive sign. Looking at the magnitude of the marginal effect, we can state that the number of credit cards held by families living in medium sized cities increases by 0.1380 with respect to that held by families residing in small municipalities. For large cities the marginal effect is 0.2119.

We also found that households whose head is a woman possess fewer credit cards than households with a male head, although the difference is quite small (0.1172). The number of credit cards held is higher when the head is more educated, as shown by the positive sign of the coefficient CSC, HSC e BDP. Particularly, families whose head attended the compulsory school hold 2.0069 more credit cards than those whose head has no education. If the head of household attained a high school diploma or a Bachelor/post-graduate degree, then the family holds 3.1227 and 3.5728 credit cards, respectively, more than the reference group. In other word, an increasing relationship between the number of credit cards held and the level of education seems to exist. Finally, households held fewer credit cards, if their heads are single or separated/divorced/widower/widow. The marginal effects are 0.2909 and 0.3477 respectively.

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<sup>1</sup>However, since the relationship is not linear, the marginal effect varies with the age.



Variable	AME
AGE	-0.0131*** (0.0020)
NCOMP	-0.0083 (0.0203)
WEALTH	0.0892*** (0.0219)
INCOME	0.0039*** (0.0005)
<i>Geographic location</i>	
CENTRE	-0.2406*** (0.0516)
SOUTH	-0.9443*** (0.0598)
<i>Municipality size</i>	
MMUN	0.1380*** (0.0475)
LMUN	0.2119*** (0.0720)
<i>Sex</i>	
FEM	-0.1172** (0.0545)
<i>Education</i>	
CSC	2.0069*** (0.3102)
HSC	3.1227*** (0.3107)
BDP	3.5728** (0.3175)
<i>Marital status</i>	
SIN	-0.2909*** (0.0718)
SDW	-0.3477*** (0.0690)

Significant at: \*\*\* = 1% level; \*\* = 5% level; \* = 10% level.  
Standard errors of the marginal effects in parentheses.  
Reference groups: NORTH, SMUN, MAL, NSC, MAR.

Table 5. *Average marginal effects for the random effects (normal) model*

## CONCLUDING REMARKS

In this paper we have studied the determinants of the use of one of the major electronic banking services (credit cards) by Italian families. Using data from the Survey of Household Income and Wealth

(SHIW) conducted by the Bank of Italy and panel count data models, we have found that factors such as wealth, income and geographic location of the household, and socio-demographic characteristics of the head of household are effective in predicting the number of credit cards held. Among those factors, those exerting a stronger impact are the location where the household resides and the level of education of the head of household. More precisely, families living in the South of Italy possess fewer credit cards, while families whose head is more educated held more credit cards.

Our results could be of interest for implementing marketing strategies in the credit card industry and specifically to concentrate effort on particular customer segments. Moreover, they could be of help in understanding some characteristics of the credit card market such as “multi-homing” and “co-holding”.

Some extensions of our model would be of interest. First, one could take into account dynamic and possible serial correlation among observations. In other words, the number of credit cards could depend on the number of credit cards held by the household in the previous year. Another interesting extension would be the use of zero inflated and hurdle models to accommodate the large proportion of households not holding a credit card. We leave this for future research.

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## MARKET EFFICIENCY AND TECHNICAL ANALYSIS IN THE CENTRAL AND EASTERN EUROPEAN REGION

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### ABSTRACT

In this paper we make a detail evaluation of stock market efficiency in Central and Eastern Europe (CEE). First, we employ 686,243 prediction models derived from 44 technical analysis indicators and determine that significant inefficiencies exist for stock prices in this region. We show that investor success slightly depends on the target investment asset, country and prediction model, but more heavily depends on market conditions in specific time intervals. Because the latter do not shows improvements in time, we support the Adaptive Market Hypothesis for the region. Next, we focus on finding out what are the determining factors for market efficiency using linear and GLM models. We find that the main determining factor for market efficiency in the CEE region is price momentum, and argue that price anomalies are due to investor overreactions. Also, we find that liquidity has an almost insignificant effect on stock market efficiency in the region.

**Keywords:** *Adaptive Market Hypothesis, Bootstrap, Efficient Market Hypothesis, Central and Eastern Europe, Stock Markets, Superior Predictive Ability, Technical Analysis*

### INTRODUCTION

Market efficiency is a longstanding hot topic in financial literature. The Efficient Market Hypothesis (EMH) has been developed in the 1960's by Samuelson (1965) and Fama (1965, 1970) and despite its criticism from Behavioral Finance (see Shiller, 2003) and recent competitors like the Adaptive Market Hypothesis (AMH) of Lo (2004, 2005), it is still the dominant theory that explains price behavior in financial markets. Many empirical evidence against it have been documented ("anomalies"), but they have either disappeared, have been proved to be wrong or have been simply accommodated by developments in theory (like the evolution from constant to time varying expected returns, thoroughly explained by Fama (1991)).

Recent developments follow approximately the same pattern. For example, Ross (2013) developed his Recovery Theorem, which has already been put to use by Audrino, Huitema, and Ludwig (2014) to successfully time the market and gain (fictive) abnormal returns. We are still waiting to see if their findings have some economic validity and if they'll stand the test of time.

Meanwhile, we have witnessed the transformation of the EMH into a more relative theory. Because starting with Grossmann and Stiglitz (1980) we know that a fully efficient market is impossible, researchers have gradually abandoned the absolute state of market efficiency concept in favor of examining the differences in efficiency between different markets and linking their evidence to differences in specific market characteristics. Thus, emerging markets came into the focus of researchers. Also, a time relativization has occurred, with the AMH being the time-domain equivalent of the relative EMH for the cross-section of markets (and, in more detail, specific asset groups, industries, and even individual assets). Lim and Brooks (2011) detail on the developments of the methodology and evidence in this aspect, noting an increasing support for the AMH.

This paper tries to evaluate the relative informational efficiency in stock markets of the Central and Eastern European (CEE) countries, but using a different approach<sup>1</sup>. The main limitation of existing papers is their practical inapplicability. Lim and Brooks (2011) point out that “proponents of the EMH always dismiss negative empirical evidence on the grounds that those detected stock market predictable patterns do not give rise to profitable investment strategies”. This is due to methodology limitations (like the lack of cost and risk adjustments or the improper treatment of the data snooping bias) or simply to abstract findings to whom the average investor might not relate to (see Timmerman and Granger, 2004, for a detailed discussion on why the detection of certain anomalies does not necessarily reject market efficiency).

The way to eliminate those limitations is by using practical investment techniques that actual investors use, and the natural solution is technical analysis, a century old foe of efficient markets. We know that investors, including sophisticated ones (like fund managers), use technical analysis in some way or another in decision making (see Menkhoff, 2010), so it is clear that technical analysis indicators are practical. We also have a substantial body of scientific literature that tests technical analysis indicators<sup>2</sup>, but few and incomplete studies exist for the CEE region<sup>3</sup>.

This paper aims to compensate the existing deficiencies, in order to cast a clearer view regarding stock market efficiency in the CEE region. Specifically, we try to answer the following questions: can investors gain abnormal returns in the CEE stock markets using some practical investment models derived from technical analysis? Are the CEE stock markets efficient? What theoretical framework best describes the informational efficiency in the CEE countries? What are the determining factors for stock market efficiency in the CEE region?

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<sup>1</sup> Many papers exist that do exactly that, but using standard methodologies. For example, Dragota and Tilica (2013) have investigated if the CEE stock markets are efficient or not using a complete arsenal of econometric tests, like autocorrelation, unit root, filter rules, variance ratio and so on. They have found significant statistical evidence of price movements inconsistent with the EMH.

<sup>2</sup> Please see Park and Irwin (2007) for an excellent review. Also see Taylor (2014) for a more recent example.

<sup>3</sup> A recent example is Anghel (2013, 2014a) that only threats the case of Romania. Also, Anghel (2014b) searches for predictable patterns in the CEE region using only one technical analysis indicator, namely the RSI.

The paper is structured as follows: section 2 details on the methodology, section 3 presents and comments on the results, while section 4 concludes.

## METHODOLOGY AND DATA

There is no investment method that conflicts with the EMH more than technical analysis. Although efficient market advocates dismiss its applicability, investors widely use it on the world financial markets (Menkhoff, 2010). The success (predictive ability) of technical analysis is negatively related with the degree of market efficiency. In order to study the latter, we hereby employ a total of 686,243 prediction models (trading rules) derived from 44 technical analysis indicators developed in the last 60 years (table 1 lists them and Colby, 2002, offers detailed explanations). The idea is very simple: if the market is efficient, then the recommended investing method is the passive buy-and-hold strategy (this is the benchmark used here). If it is not, then an active trading rule that has economic potential exists, and our task is to find it. To do so, simple trading simulation is performed.

No.	Name (Symbol)	Number of specific models
1	Accumulation Swing Index (ASI)	210
2	Arms Ease of Movement (EMV)	840
3	Aroon Oscillator (AO)	10,507
4	Balance of Market Power (BMP)	39,207
5	Bollinger Oscillator (%b)	12,402
6	Center of Gravity Oscillator (COG)	252
7	Chaikin Money Flow (CMF)	25,258
8	Chaikin Oscillator (CO)	6,174
9	Chande Momentum Oscillator (CMO)	27,969
10	Commodity Channel Index (CCI)	616
11	Consecutive Win-Lose (WL)	21
12	Demand Index (DI)	25,258
13	Detrended Price Oscillator (DPO)	672
14	Dynamic Momentum Index (DYMOI)	37,584
15	Filter (F)	51
16	Inertia Indicator (INI)	22,464
17	Kase Convergence Divergence (KCD)	43,141
18	Kase Peak Oscillator (KPO)	8,624
19	Klinger Volume Oscillator (KVO)	6,174
20	Know Sure Thing (KST)	5,488
21	Linear Regression Slope (LRS)	371
22	Market Volume Impact (MVI)	252

23	Money Flow Index (MFI)	24,978
24	Moving Average Convergence Divergence (MACD)	4,704
25	New Relative Volatility Index (NRVI)	30,331
26	On Balance Volume (OBV)	210
27	PDM (+DM) vs MDM (-DM) crossover rule	441
28	PI Opinion Oscillator (PI)	7,107
29	Polarized Fractal Efficiency (PFE)	60,426
30	Random Walk Index (RWI) for High prices	450
31	Rate of Change (ROC)	672
32	Relative Momentum Index (RMI)	48,600
33	Relative Strength Index (RSI)	10,864
34	Relative Vigor Index (RVig)	60,426
35	Relative Volatility Index (RVI)	16,859
36	Stochastic Momentum Index (SMI)	33,250
37	Stochastic Oscillator (%K)	1,769
38	Stochastic RSI Oscillator (SRSI)	16,859
39	The Quantitative Candlestick (Qstick)	840
40	Triple Exponential Smoothing (TRIX)	3,402
41	True Strength Index (TSI)	60,426
42	Ultimate Oscillator (UO)	22,842
43	Vortex Oscillator (VX)	7,114
44	Williams Variable Accumulation Distribution (WVAD)	210

Table 1. *Summary of technical analysis indicators used in testing*

The problem with testing this vast amount of trading rules is eliminating the inherent data snooping bias<sup>1</sup>. This is done here by using the Superior Predictive Ability (SPA) test of Hansen (2005), which is an evolution of the Reality Check test of White (2000). Other econometrical tests have been developed for this kind of applications<sup>2</sup>, but the SPA is the most appropriate for the purposes of this research, because (1) we are only interested if a single rule from the “rule universe” is capable of outperforming the buy-and-hold strategy and (2) it delivers a direct measure of market efficiency<sup>3</sup>.

<sup>1</sup> This is a major limitation in the literature, but ways to eliminate it have fortunately been developed (see Park and Irwin (2007)).

<sup>2</sup> See Corradi and Swanson (2013) for a detailed review.

<sup>3</sup> The null hypothesis p-value (“SPA p-value” from now on) in the SPA test can be economically interpreted as a measure of market efficiency. Note that the SPA p-value is roughly the inverse percentile at which the SPA test statistic (calculated for the best trading rule in the universe) is found within its simulated empirical distribution (determined using the bootstrap simulation after controlling for data snooping). This leads to a natural association between the SPA p-value and the predictive ability of the best model in the trading rule universe. Specifically, when the p-value is large, then the best model has no predictive ability. The smaller the p-value, the greater the predictive ability of the best model. When the p-value is close to zero, then we have superior

The SPA test is implemented following Hansen's (2005) exact guidelines, using the stationary bootstrap of Politis and Romano (1994) and blocking rules derived from Hall, Horowitz and Jing (1995). However, several methodology adjustments and restrictions are implemented in order to take account of known market limitations and existing best practice guidelines in empirical tests. First, because of existing market restraints on short selling, only long trades are taken into account. Second, all trades are performed with a one day delay after a trading signal has occurred, so there is no simultaneous trading that might bias the estimators. Third, it is assumed that 100% of the portfolio is invested in the market when opening new positions. Fourth, the results are adjusted to all measurable trading costs: when trading, (1) a broker fee of 0.5% of traded value (this being the cost of trading for the average investor in the period) is deducted together with (2) the High-Close or Close-Low intraday spread<sup>1</sup>. Finally, the technical analysis indicators are tested separately<sup>2</sup> and then the results are aggregated for each sample using the lowest p-value rule<sup>3</sup>.

The data sample is formed using daily prices (open, high, low, close) and volume of the most important 395 stocks listed in 18 CEE countries<sup>4</sup>, starting January 1, 1991 and ending November 14, 2013. The data of the top companies using the market capitalization criteria is collected from Thomson Reuters<sup>5</sup>.

In order to evaluate the time-varying nature of market efficiency, the test is conducted in a non-overlapping sub-sample framework, with each sub-sample representing one calendar year of trading data. Sub-samples with less than 65 observations are excluded because of insufficient liquidity that would greatly diminish the tests statistical power.

The initial goal of this investigation is to use the SPA test to discover for each year and for each company included in the sample if specific technical analysis rules have superior predictive ability over

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predictive ability. As a consequence, the closer the p-value is to 1, the more efficient is the market under scrutiny, while the closer the p-value is to 0, the less efficient. Please see Hansen (2005) for the exact equations and detailed estimation procedure.

<sup>1</sup> This is done in order to incorporate the price impact cost of active trading, that we know an investor faces. This adjustment essentially replicates the scenario in which investors' trade at the least favorable price during the day following the occurrence of a trading signal, i.e. the highest price when buying and the lowest price when selling. This a prudent approach that introduces a downward bias to the return estimators and an upward bias to the SPA p-value, thus rejecting the EMH less often.

<sup>2</sup> This means that 44 separate "rule universes" are tested and then the results are aggregated. This is based on the hypothesis that investors become specialized in certain technical analysis indicators, and do not more than one when making investment decisions. Anghel (2014) has proved that investors that use a wide arsenal of technical analysis indicators when making decisions are not necessarily the smarter ones, mainly because of the large data snooping bias inherent in large "rule universes". The old saying of "can't see the forest through the trees" perfectly characterizes this situation.

<sup>3</sup> This means that the final p-value is calculated as  $\min(pvalue_m)$ , where  $m=1..M$  is the number of tests (rule universes) for a given sample.

<sup>4</sup> The countries are Bosnia And Herzegovina (15 companies), Bulgaria (15), Cyprus (19), Czech Republic (13), Estonia (16), Greece (39), Croatia (23), Hungary (13), Lithuania (24), Latvia (23), Poland (36), Romania (39), Serbia (14), Russian Federation (33), Slovenia (7), Slovakia (7), Turkey (39) and Ukraine (20).

<sup>5</sup> This is available at the Bucharest University of Economic Studies through the PROFIN project financed together with the European Union through the POSDRU program.



the benchmark. The event when the SPA null is rejected is named a “positive discovery”, because it rejects the weak form EMH for the company and time frame on which the test was carried out. Note that a threshold of 10% is used here to identify superior predictive ability rules, so weak statistical significant results are also taken into consideration. Also note that 1000 simulations are performed when implementing the bootstrap procedure.

The secondary goal of this paper is explaining what factors influence market efficiency in the CEE region. This is done using the SPA p-value, which interpreted as explained earlier can be linked with many different independent variables in a regression model.

## RESULTS AND INTERPRETATION

Table 2 presents the test results grouped by sample year, while table 3 presents the results grouped by sample country. The last 4 columns in each table report the results of a linear regression with dummy variables, where each dummy represents a separate year/country. The dummy coefficient can be interpreted as the average SPA p-value obtained for the group in question. The last row in the tables presents some relevant test statistics for this regression.

We see that testing the 44 indicators yields a total of 4,317 positive discoveries, which represent 2.39% of the total test results. Note that the majority of them occur in 2008 (a success rate of 20% accompanied by a dummy coefficient of 0.3647), this pointing to a big efficiency meltdown during the climax year of the recent global financial crisis.

This indicates that superior trading models to the benchmark exist. This in turn means that on the CEE stock markets, situations exist when the future price behavior can be anticipated using technical analysis indicators that are calculated solely using historical trading data, although they are very scarce. Because of this, we cannot reject the weak form EMH as a whole for the CEE region in the 1991-2013 period, but we can reject it for specific situations and conclude that the CEE stock market shows periodic signs of inefficiency. Because we see that efficiency is not improving in time (there is no positive trend for the dummy coefficients and no negative trend for the success rates), the results are more consistent with the AMH of Lo (2004, 2005), meaning that abnormal return opportunities appear from time to time depending on specific market conditions, but they are sooner or later arbitrated away. This result is in accordance with the major trend in international literature as pointed out by Lim and Brooks (2011).

Year	Observations	Positive discoveries	Success rate	Coefficient	Std. Error	t-Statistic	Prob.
1991	731	1	0.14%	0.8053	0.0099	81.6989	0.0000
1992	1075	5	0.47%	0.7314	0.0081	89.9760	0.0000
1993	1118	0	0.00%	0.8077	0.0080	101.3396	0.0000
1994	1591	33	2.07%	0.7862	0.0067	117.6628	0.0000
1995	2236	5	0.22%	0.7838	0.0056	139.0675	0.0000
1996	2795	53	1.90%	0.7688	0.0050	152.5076	0.0000
1997	3182	0	0.00%	0.7905	0.0047	167.3095	0.0000
1998	4343	106	2.44%	0.7251	0.0040	179.3043	0.0000
1999	5074	1	0.02%	0.8099	0.0037	216.4622	0.0000
2000	6106	210	3.44%	0.7152	0.0034	209.6889	0.0000
2001	7009	107	1.53%	0.7477	0.0032	234.8802	0.0000
2002	7654	261	3.41%	0.7192	0.0030	236.1016	0.0000
2003	8299	6	0.07%	0.8289	0.0029	283.3454	0.0000
2004	8944	16	0.18%	0.8222	0.0028	291.7626	0.0000
2005	10363	26	0.25%	0.8274	0.0026	316.0481	0.0000
2006	11567	22	0.19%	0.8263	0.0025	333.4481	0.0000
2007	13072	104	0.80%	0.8167	0.0023	350.3602	0.0000
2008	13588	2726	20.06%	0.3647	0.0023	159.5002	0.0000
2009	13287	12	0.09%	0.8025	0.0023	347.0934	0.0000
2010	14491	21	0.14%	0.8118	0.0022	366.6886	0.0000
2011	15222	422	2.77%	0.6785	0.0022	314.1120	0.0000
2012	14921	133	0.89%	0.7686	0.0022	352.2633	0.0000
2013	14276	47	0.33%	0.8148	0.0022	365.3041	0.0000

Included observations = 180944, Adjusted R<sup>2</sup> = 0.1676, Log likelihood = -17463.83, Durbin-Watson stat = 1.3790, Akaike Info. Criterion = 0.1933, Jarque-Bera statistic = 72484.22 (0.0000), Breusch-Pagan-Godfrey statistic = 913.1035 (0.0000).

Table 2. SPA test results grouped by sample year

Countr	Observation	Positive discoveries	Success rate	Coefficien	Std.	t-Statistic	Prob.
y	s	s	s rate	t	Error		
BA	3225	342	10.60%	0.6082	0.0051	119.7193	0.0000
BG	6149	268	4.36%	0.7345	0.0037	199.6295	0.0000
CY	9546	309	3.24%	0.7025	0.0030	237.8945	0.0000
CZ	5848	32	0.55%	0.7645	0.0038	202.6187	0.0000
EE	6622	228	3.44%	0.7644	0.0035	215.6031	0.0000

GR	26832	537	2.00%	0.7372	0.0018	418.5134	0.0000
HR	9202	203	2.21%	0.7199	0.0030	239.3565	0.0000
HU	7869	92	1.17%	0.7536	0.0033	231.6906	0.0000
LT	11051	387	3.50%	0.7333	0.0027	267.1687	0.0000
LV	7826	301	3.85%	0.7603	0.0033	233.1032	0.0000
PL	15652	83	0.53%	0.7966	0.0023	345.4314	0.0000
RO	19694	469	2.38%	0.7863	0.0021	382.4370	0.0000
RS	4386	179	4.08%	0.6953	0.0044	159.5981	0.0000
RU	6493	182	2.80%	0.7396	0.0036	206.5599	0.0000
SI	3526	221	6.27%	0.7373	0.0049	151.7319	0.0000
SK	3096	10	0.32%	0.7631	0.0052	147.1641	0.0000
TR	27348	87	0.32%	0.8104	0.0017	464.4706	0.0000
UA	6579	387	5.88%	0.6280	0.0036	176.5501	0.0000

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Included observations = 180944, Adjusted  $R^2$  = 0.0244, Log likelihood = -31830.34, Durbin-Watson stat = 1.5817, Akaike Info. Criterion = 0.3520, Jarque-Bera statistic = 51293.77 (0.0000), Breusch-Pagan-Godfrey statistic = 859.7757 (0.0000).

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Table 3. *SPA test results grouped by sample country*

Table 3 paints a relative efficiency picture of the countries in the CEE region, with Turkey being the most efficient, while Bosnia And Herzegovina being the least efficient. It seems that efficiency varies with the maturity and size of markets, but there are not sufficient observations to clarify this aspect in a statistical significant way. We can instead deduce that market efficiency and, in turn, investor chances of gaining abnormal returns, only slightly varies from country to country in the CEE region. A similar analysis is performed when grouping the results by company and by technical analysis indicator (which are not reported here because of space constraints) and the relatively smooth regression coefficients and low goodness of fit measurements also indicate that the investor chances of gaining abnormal returns only slightly depend on the target investment asset or specific prediction model used. Next we move to investigating the factors that influence market efficiency in the CEE region, using linear and GLM regressions. Two such factors are taken into consideration, namely liquidity and price momentum. The inclusion of liquidity among the explanation factors is rather obvious. Two proxies are used for it, namely a volume-related proxy in the form of the relative turnover (traded volume divided by the total number of shares) and a time-related proxy in the form of the relative number of trading days (number of days for which trades exist divided by the maximum number of trading days in the period). On the other hand, momentum (calculated as the total subsample return) is chosen as a determinant because, in an economic sense, it is a function of information and investor behavior, since it is determined by the way investors interpret the newly arriving information and incorporates it into

market prices. If investors would behave in a way described by the classical financial theory, then they would incorporate the newly arriving information very efficiently into trading prices. Because we now know that market inefficiencies sometimes appear in the CEE region (results in tables 1 and 2), we use price momentum to try to find out if there is a link between investor behavior and those inefficiencies, i.e. if investors overreact to information in such a way as to generate abnormal return possibilities for arbitrageurs.

Table 4 presents the results of the linear regressions relating the SPA p-value with each explanatory variable separately. The equations are of the form:  $p_{SPA} = \alpha + \beta x + \varepsilon$  and the tests are based on a total of 4208 observations that were earlier obtained from the SPA tests (4208 is equivalent to the total number of valid subsample that were analyzed). We see that a positive relationship between market liquidity and market efficiency exists (first two columns), but the relationship is very weak. A visual representation of the data points and fit is provided in figure 1(a, b). Several GLM models (not reported here) are further used to confirm this initial finding, and the results point to the same conclusion, namely that liquidity has a very small impact on informational efficiency in the CEE countries. Note that the exclusion of extreme illiquid subsamples (with less than 65 trading days in a year) may bias these results, although not by much because companies that trade between 65 and 130 days in a year (that is less than half of the total trading days) may also be considered illiquid in the current financial markets, especially since we are talking about the biggest companies listed in the analyzed region.

Moving on, we notice a much stronger relationship between efficiency and price momentum, which is rather intuitive because price momentum essentially means high autocorrelation (notice that momentum explains one third of the variation in the SPA p-value, which is really a lot given results are calculated on such a daily frequency). Using the Quandt-Andrews unknown breakpoint test, the equation is broken down in several sub-samples. The separate equations are reported in columns 5-9 on table 4. A very interesting aspect of this division is that it singles out several ranges for the predictor variable that exactly represent qualitative characterizations of market trends (these are described in row 2 of table 4, while the range extremes are reported in rows 4 and 5). The results point out that market momentum has a strong influence on market efficiency. For example, we see that very severe downtrends (that experience log-returns of between -726% and -96%) are always inefficient<sup>1</sup> and surely the result of irrational behavior. We also see that the relationship is valid for both momentum directions (the coefficients are positive for downtrends and negative for uptrends), but is much more significant on the negative momentum side, this pointing out that situations of overreaction to negative events are much more common and have a higher impact on market efficiency than situations of

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<sup>1</sup> The equation in this case levels down to  $SPA\ p\text{-value} = 0.0658$  (because the other explanatory variables are not statistically significant). This means that there is at least one trading rule in the 600+ thousand universe that has superior predictive ability when compared with the buy-and-hold rule.

overreaction to positive events. This result explains the efficiency meltdown in 2008 and points out that investors display some common behavioral biases, especially panic, in times of major (and maybe autocorrelated) negative information.

Statistic	Results of separately regressing spa p-value on the three independent variables			Results of regressing spa p-value on total sample return (ret), broken down into relevant subsamples				
Independent variable (x)	ntd	pct	ret	ret	ret	ret	ret	ret
Sample description	Full sample	Full sample	Full sample	Very severe downtrend	Severe downtrend	Downtrend	No trend	Uptrend
From...To	1..4208	1..4208	1..4208	1..282	283..923	924..1461	1462..2272	2273..4208
Minimum*	0.1776	0.0000	-7.2644	-7.2644	-0.9602	-0.2989	-0.8570	0.1499
Maximum*	1.0000	10.9821	4.4530	-0.9639	-0.2998	-0.8580	0.1499	4.4530
Intercept	0.5062 (0.0000)	0.5062 (0.0000)	0.5062 (0.0000)	0.0658 (0.0000)	0.3853 (0.0000)	0.5329 (0.0000)	0.6321 (0.0000)	0.6626 (0.0000)
Coefficient	0.0368 (0.0000)	0.0202 (0.0000)	0.1576 (0.0000)	-0.0047 (0.3314)	0.1845 (0.0000)	0.3809 (0.0000)	0.5145 (0.0000)	-0.0134 (0.0455)
F-statistic	85.0038 (0.0000)	25.3864 (0.0000)	2401.216 0 (0.0000)	0.9466 (0.3314)	75.4562 (0.0000)	20.5722 (0.0000)	52.5613 (0.0000)	4.0044 (0.0455)
Akaike Info. Cr.	0.1349	0.1489	-0.2967	-2.0888	-1.0489	-0.7620	-0.5408	-0.5271
Adjusted R <sup>2</sup>	0.0196	0.0058	0.3633	-0.0002	0.1042	0.0352	0.0598	0.0016
Jarque-Bera statistic	307.34 (0.0000)	299.53 (0.0000)	258.48 (0.0000)	491.48 (0.0000)	148.35 (0.0000)	4.08 (0.1299)	60.36 (0.0000)	572.24 (0.0000)
Durbin-Watson statistic	0.8322	0.8409	1.3180	1.9169	1.9207	1.8584	1.8858	1.9858
Breusch-Pagan-Godfrey statistic	28.0463 (0.0000)	2.4020 (0.1212)	0.0208 (0.8852)	0.6637 (0.4153)	9.2729 (0.0023)	0.4054 (0.5243)	0.7744 (0.3788)	2.4873 (0.1148)
Mean	0.8999	0.2919	0.0763	0.0763	0.0763	0.0763	0.0763	0.0763
Standard Deviation	0.1776	0.6310	0.7227	0.7227	0.7227	0.7227	0.7227	0.7227
Implied threshold**	#n/a	#n/a	-1.7868	#n/a	-1.1178	-0.8214	-0.7474	30.3399

NOTE: <sup>1</sup> All regressions are performed using normalized independent variables, with the mean and standard deviation of the base (unnormalized) variable being reported in the bottom section of the table.

<sup>2</sup> P-values in parenthesis.

<sup>3</sup> ntd = relative number of trading days.

<sup>4</sup> pct = relative turnover (or percent of capital traded).

<sup>5</sup> ret = total log-return within the sample window.

\* The minimum and maximum are the extreme values of the range for the base (unnormalized) independent variable.

\*\* The implied threshold is the value of the explanatory variable for which the model predicts a p-value of 0.1, one which would reject the SPA null hypothesis. It is expressed in the same unit of measurement as the base independent variable. A #n/a value is obtained if the calculation is not possible or if the result does not belong to the theoretical distribution of the independent variable.

Table 4. Results for individual linear regression models

The relationship between efficiency and momentum is further analyzed using a wide arsenal of GLM models, to see if this category of models have a higher explanation power than the simple linear regression, which relies on the standard Gaussian distribution. Because the relationship is evident in both directions, a quadratic element is incorporated into the regressions, so the linear predictor in the GLM framework looks like:  $\eta_i = \alpha + \beta_1 x + \beta_2 x^2 + \varepsilon$ . But because the relationship is more pronounced on the negative side, equations without this term are also considered (so simple linear regression are also performed, but assuming a different distribution for the response variable). Table 5 reports the models that display the largest explanatory power among the bunch. Notice that the models that have the best goodness of fit measurements all incorporate the quadratic component and use the Gaussian conditional distribution for the response variable, irrespective of the canonical link (so changing the distribution has not much of an effect, but changing the model has). This confirms that both positive and negative momentum has an influence on efficiency. Also notice that these models produce better fits than the previous analyzed linear one. Figure 1(c) gives a visual comparison for the best models in each category and we can see that all of the models fit the data well, especially on the negative side. These results reinforce the idea that there is a strong link between price momentum and market efficiency, this constituting evidence of investor suboptimal behavior in the form of overreactions, both to positive and negative information (the overreactions to negative information – panic – is much more pronounced).

Even more interestingly is the fact that an exact quantitative threshold can be estimated in order to characterize the efficient nature of price movements and investor rationality in CEE countries. When we substitute 0.1 for the dependent variable and solve for the independent variable in the estimated models, the linear equation predicts a threshold log-return of -111.78%, while the best GLM model predicts a threshold log-return of -95.02%. This translates into discrete returns of -67.30% and -61.33%, respectively. Consequently, yearly price movements that are lower than approximately -60% can be considered a result of investor irrational behavior. This conclusion arises because when such price movements occur, technical analysis trading rules display superior predictive ability to the buy and hold model. This is a very interesting finding, as a quantitative threshold that describes investor rationality in the CEE stock markets is described<sup>1</sup>.

link	Canonical	Lo git	Lo git	Pro bit	Pr obit	Lo g-Log	Complementary Log-Log
n	Distributio n	Poi sson	No rmal	Pois son	No rmal	No rmal	Negative Binomial (1)
$\alpha$	-	0.2 242 (0. 0000)	-	0.1 381 (0. 0000)	0.5 409 (0.0 000)	-0.3285 (0.0000)	

<sup>1</sup> Note that this result may be influenced by the survivorship bias inherent in the sample used.

$\beta_1$	1.1	1.1	0.61	0.6	0.7	0.9298
	309	125	01	794	770	(0.0000)
	(0.0000)	(0.0000)	(0.000)	(0.0000)	(0.000)	
$\beta_2$	-	-	-	-	-	-
		0.4170		0.2530	0.2666	
		(0.0000)		(0.0000)	(0.000)	
$R^2$ *	0.4	0.5	0.42	0.5	0.5	0.3532
	200	209	16	190	200	
Pearson statistic	2.4	0.0	270	0.0	0.0	0.5339
	719	327	48.40	329	328	
Implied threshold	-	-	-	-	-	-1.4171
	1.3279	0.9502	1.4415	0.9212	0.8206	
		3.0		4.0	3.0	
		310		618	795	

NOTE: \* The R-squared for the GLM models is a pseudo R-squared calculated as  $1-D_1/D_0$ , where  $D_1$  is the residual deviance (or Sum of Square Errors) for the model in question and  $D_0$  is the residual deviance (or SSE) for the model including only a regression constant (alpha).

Table 5. Summary results for best performing GLM models

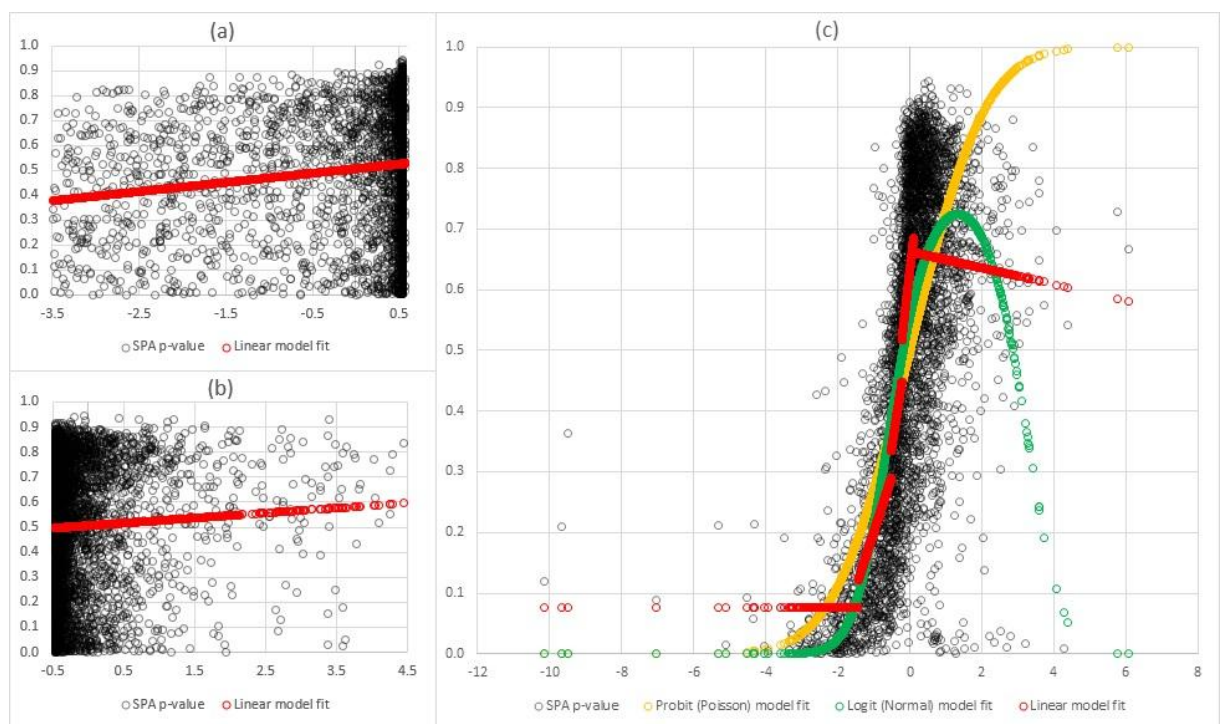


Figure 1. Scatter plot representation and fitted values of the regression models

Finally, we want to see what happens with the relationship when we control for both liquidity and momentum. Table 6 reports the results of the estimated models for each category. We see that the results are in accordance with the previous stated conclusions, namely that market efficiency highly depends on price momentum, while liquidity has only marginal explanation power. A point of emphasis here is the relatively high explanation power of the model in the last column in table 6. It seems that the combination of market momentum and liquidity account for more than half of the

variability in market efficiency (of course, for the stock markets in the CEE region), with momentum playing the more important role. If we view momentum as a proxy for investor behavior, we can argue that the latter is fundamental to the well-being of today's financial markets, more than other economic and market specific factors that may influence it (and were not considered here).

Estimators	Linear model	Logit (Normal) quadratic term	withoutLogit (Normal) quadratic term
c	0.5062 (0.0000)	0.0773 (0.0000)	0.224458 (0.0000)
ntd	0.0299 (0.0000)	0.1491 (0.0000)	0.157437 (0.0000)
pct	0.0055 (0.0916)	0.0317 (0.0535)	0.025221 (0.0868)
ret	0.1561 (0.0000)	0.9764 (0.0000)	1.112919 (0.0000)
ret^2	-	-	-0.421345 (0.0000)
F-statistic	851.1245 (0.0000)	-	-
Log likelihood	-	925.03	1306.79
Akaike Info. Criterion	-0.3187	-0.4378	-0.6187
Adjusted R <sup>2</sup>	0.3774	0.4477	0.5393
Jarque-Bera statistic	302.85 (0.0000)	362.44 (0.0000)	449.33 (0.0000)
Durbin-Watson statistic	1.3088	-	-
Breusch-Pagan-Godfrey statistic	6.5025 (0.0896)	-	-
LR statistic		3407.60 (0.0000)	4920.77 (0.0000)
Pearson statistic	-	0.0378	0.0315

Table 6. Results for regression models when controlling for both liquidity and price momentum

## CONCLUSIONS

In this paper we set out to evaluate the market efficiency in Central and Eastern Europe. Using the SPA test of Hansen (2005), we discover that practical technical analysis prediction models display superior



predictive ability to the buy and hold model and, consequently, significant inefficiencies appear from time to time in this region. Also, using several linear regressions with dummy variables, we see that the investor ability to gain abnormal returns is marginally influenced by the country or asset he/she invests in and by the specific prediction models he/she employs, in turn being highly influenced by market conditions in specific time frames. Because these conditions do not seem to improve over time, the Adaptive Market Hypothesis of Lo (2004) is the best framework that explains informational efficiency in the region, thus supporting international evidence highlighted by Lim and Brooks (2011). Finally, we discover that market efficiency is positively (but very weakly) influenced by market liquidity, while price momentum plays the most significant role. Because the latter is a function of information and investor behavior, we conclude that investors exhibit some common behavioral biases in the CEE region from time to time, especially panic. Using the estimated models, a relative yearly discrete return threshold of approximately -60% can be calculated in order to discriminate between rational and irrational price movements.

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## A FOCUS GROUP STUDY OF PENSION AUTONOMY AND INVESTING IN NEW ASSET CLASSES

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### ABSTRACT

Individuals' involvement in the Dutch pension system is currently limited. In this study, we employ a qualitative method in order both to explore individuals' views on an increased level of pension-autonomy, and to examine their stance with regard to criteria of socially responsible investments and targeted impact investments. Our sample consists of 24 members and managers of the Dutch pension administrative organization "PGGM". Three semi-structured homogeneous focus group discussions have been conducted, each with between 7 and 9 participants. The data was coded both deductively and inductively, following the framework method. We explore three themes regarding retirement issues: (1) general attitude toward retirement, (2) retirement concerns, and (3) pension policy. Our findings indicate that viewpoints on general attitudes toward retirement and retirement concerns were common across our three focus groups. However, we find that members and asset managers have different standpoints on investment criteria. The attitude toward sustainable and impact investing was more favorable to members than to managers. Subsequently, the attitude toward achieving financial efficiency was more favorable to managers. In conclusion, we identify individuals' positive standpoint on increased pension autonomy and their willingness to get actively involved in pension issues together with some self-efficacy concerns. Thus, increased autonomy should be combined with intervention strategies varying from education to carefully designed choice architectures. Future research aims to focus on the consistency of individuals' choices in the long run and place under scrutiny the effect of psychological distance on socially responsible investments and targeted impact investments.

**Keywords:** *Pension Choices; Pension Autonomy; Impact Investing; Sustainable Investing; Investment Preferences;*

## INTRODUCTION

The recent financial crisis has deteriorated the financial position of many Dutch pension funds reflected on their coverage ratios, mainly due to lower interest rates and lower investment returns than before. As a consequence, asset managers, on behalf of pension fund boards, of pension funds are obliged to maintain larger reserves than before. This means that they see themselves confronted with the choice of either decreasing the payments to the pensioners, those who now have reached the pension age, or deciding to increase the pension premiums for younger employees, those who still have to build their future pension rights. The first measure also has impact on the pension entitlements of the active. These developments have aroused attention of the public for pension issues and, particularly, the institutional design of pension funds.

The increased uncertainty of the economic environment hinders any forecasts about financial returns. Still, we attempt to offer two remarks about their future prospects. First, the economic reasoning behind the expectation of high yields seems to be the assumption that our capital still represents a very scarce factor in the world economy. However, it is at least remarkable that on the one hand, the market interest rates on capital are historically low, and, on the other hand, the expectations of high returns on investment are high as ever. Second, we may add that the political influence of emerging economies has increased substantially. Consequently, the excessive availability of non-priced scarce resources (water, soil fertility, abuse of child labor, of women, animal welfare etc.) has aroused concern all over the world. The effect of this concern is that non-priced scarcities have become increasingly being priced scarcities. These are only two possible reasons of why high returns on investments are less self-evident and therefore the expectation of high returns in the future of investments are even less likely to get fulfilled.

From the above mentioned considerations, policy makers for investment funds face the question of how to design the pension funds in the future. This is enforced by the social-cultural tendency that mandatory schemes are losing support, due to emancipation and willingness for control by individuals rather than forced collective arrangements. The study of Goudswaard et al. (2004) showed that willingness to pay increase if transparency is provided on the way the money is spend, i.e. the pension asset is invested. Basically, the question is whether they can continue to oblige people to save and pay fees for pensions on the expectation that by doing so they may expect sufficient financial means at their old age. The question that arises is whether this approach would guarantee them sufficient security of a comfortable last phase of their lives, and if it would give them the certainty of sufficient financial means, despite that they cannot contribute to the national economy any longer. Up to now, these questions were left to be dealt by the boards of pension funds and governments.

However, in recent years, the issue was also taken up by a new class of investors. These investors asked the question which contribution their investments should give to society in the long run. Basically, they felt that investments are not just to yield financial returns, but, that in the first place, their investments should contribute to a better world, for their (grand) children and for those people living in poverty in their daily lives. As a matter of fact, those investors - called *social venturing investors/entrepreneurs* represent an entirely *new asset class*. They introduced an innovation of financial management in which the financial returns no longer are the primary goal of investment but represent a necessary condition to realize certain goals for the society. They were faced with the following set of choice alternatives of investments: the prospect of maximizing financial returns on investments versus the alternative to realize other defined goals for the future. Additionally, participants of pension schemes are increasingly interested to know and understand where their premiums and asset are being invested and whether the current investing practice contributes to their society and economy.

In the meantime, managers of public funds examine their investments with respect to criteria of sustainability and social responsibility. Following the Shell Company, which introduced the so-called people, planet and profit standards, these criteria have now become, more or less, a common practice. In the sustainability reports companies and investment funds report annually on the examination of their activities by those criteria. Well known examples are that most fund managers would not invest in, for instance, the tobacco industry, certain branches of the weapon industry, firms making use of low price imports due to children labor, or uses of resources like wood, fish, farm products etcetera that are not produced sustainably.

The concept of "social venturing investments" is taking these considerations as a starting point but at the same time is making the next decisive step. Social venturing investment not only excludes non-sustainable investment opportunities, but also strives for positive long-term goals: "For which purposes do I want to employ my capital? What do I want my investments to realize? Which are the wicked problems of our times? How to contribute to a better world for the next generation and for those who face starvation?"

Until recently those discussions were the prerogative of asset managers and of high net worth individuals. The financial crisis, which at this moment concerns the whole Europe, has made clear that ultimately the politicians and therefore the civil society, i.e. ordinary people have to provide solutions for the partial break down of the financial system. Therefore, we should not be amazed by the fact that those who have to pay the fees begin to ask themselves the question: "should we not then determine ourselves in what direction our pension capital should be invested?"

Our study aims to fill this gap in the literature by exploring the viewpoint of pension participants not only about having an increased level of autonomy, but also selecting how their pension capital should

be invested. Our study was conducted in the Dutch care and welfare sector. We used homogeneous focus group discussions in order to provide the opportunity to participants to discuss their own beliefs for having an increased level of pension autonomy and choosing to invest their pension capital according to criteria of impact investing and sustainability. A purposive sampling process was used to ensure the inclusion of participants with different socio-demographic characteristics and occupational identity. In more detail, we contrast the views of the members of a cooperative pension fund administrative organization with its asset managers. Our findings add knowledge on the individuals' attitude toward an increased level of pension autonomy and on whether individuals in collective pension systems are willing to accept a lower financial return on the merit of achieving certain social goals.

## **INCREASING PENSION AUTONOMY**

In the Netherlands, most of the Dutch employees are obliged to save in the occupational pension (Els et al. 2007), while the pension system requires limited involvement by individuals. This coercive paternalistic system with the compulsory participation aims to secure people from any unsafe decisions with regard to pension. However, this security implies the restraining, in a quite high degree of the freedom of choice. Benartzi & Thaler (2002) argue that individuals do not have well-defined preferences and sometimes are prone to irrational choices caused by behavioral biases. Thus, individuals make suboptimal choices with regard to investment decisions due to several behavioral biases and therefore a level of paternalism is required. Els et al. (2003) found that Dutch preferred to 'play safe' with their pension but at the same time were willing to have a greater level of autonomy. In a subsequent study, van Rooij et al. (2007) found that around one quarter of the Dutch respondents were willing to have increased pension autonomy. However, they suggested that an increased level of freedom should be accompanied by some level of choice architecture and state interventions due to behavioral biases.

## **IMPACT INVESTING AND SUSTAINABILITY**

The side effects of the financial crisis have caused institutional investors to revise their investment behavior and to look for new investment strategies more socially concerned. Furthermore, the financial crisis brought up to the surface some ethical considerations about the investment process. Some institutional investors, have already engaged to SRI investment policies, showing an increased social responsibility. These institutional investors realized that investing in a long-term horizon, following the criteria of sustainability and social responsibility, can move along with the attainment of financial goals.

Pension funds have started integrating SRI principles in their investment philosophy as they realize that sustainability and social responsibility is part of their fiduciary duty (Koedijk & Slager 2011).

## **A FOCUS GROUP STUDY IN THE DUTCH HEALTHCARE SECTOR**

The influence of people on the investment policy of pension funds in the Netherlands is historically absent. Pension funds have the legal status of foundations. Foundations have no provision for formal ownership. Indirectly, there might be some influence of the fee paying contributors namely via political regulation. This influence, however, is so indirect that we may say that pension funds are based on the concept of “public owned” but not of “public controlled”.

For the pension fund care and welfare (PFZW) a special situation holds. This pension fund (the second largest in the Netherlands, with total assets amounting to approx. € 140 billion) has made a service level agreement with PGGM. PGGM manages the total amount of assets on behalf of the pension fund. PGGM, however, has the legal status of a cooperative. In other words, PGGM is a “member owned”, “member controlled” and a “member benefit” organization. The fund PFZW determines the asset policy of pension capital but at the same time the people who pay the fees to the fund are given voice via the cooperative PGGM.

For this care and welfare sector the new asset class refers to investments in working circumstances, the organization of the care sector and medical innovation. Now, the basic question arises: may we expect that these members are able to contribute to the debate concerning investments that can affect their own future? What are the preferences of those who will depend on care, those that have to provide that care and the future that will apply when the present working population of this sector will have reached the pension aged themselves?

## **RESEARCH METHOD**

### *Design and sampling*

Our sample consisted by 24 individuals grouped in three semi-structured focus group sessions, each with between 7 and 9 participants (in total 13 females and 11 males). The three panels were designed following a purposive sampling process in order to satisfy the criteria of homogeneity and maximum variation in the target phenomenon (Sandelowski 1995). Sim, (1998) argues that heterogeneity in the formation of focus groups with respect to demographic characteristics, educational background, and occupation might influence participants' willingness to express freely their views. Hence, following to Malhotra's and Birks's, (2005) suggestions, we compiled homogeneous focus groups, designed to satisfy the criteria of age and occupational identity. The focus group participants were selected through PGGM member's panel following the aforementioned criteria of age and occupation. Participants

received a small reimbursement which covered their travel expenses. The focus groups discussions were held at the PGGM's headcounters and were conducted in Dutch by the two co-authors<sup>1</sup>. Each focus group session lasted 180 minutes, was video-recorded, while two observers were also present in order to take notes.

In the second task they were asked to rank a list of six investment criteria, from most to least important. From the one hand, the list included one attribute which was related to pension efficiency (pension). From the other hand, the list included five attributes related to impact investing (healthy aging, labor, and house), SRI (sustainability), and social initiatives. The moderators introduced the investment criteria of the list one by one and in a fixed order. Subsequently, the moderators instructed participants to individually rank the investments criteria according to their importance.

### *Data analysis*

We analyzed our data with the use of the Atlas.ti version 7 software following the content method (Stewart et al. 2007). The discussions translated and transcribed verbatim by one assistant. We used the framework approach, whereby a coding frame was inductively constructed and systematically applied to data (Pope et al. 2000).

## **RESULTS**

### *Contextual analysis*

We discuss our results around the main themes and the aspects emerged from the focus group discussions: attitude toward retirement, retirement concerns, and pension policies toward increased pension autonomy and involvement.

### *Attitude toward retirement*

Two main themes emerged with respect to the general attitude toward retirement: perception about the post-retirement period of life and uncertainty. The first theme that emerged from the focus groups discussions was the perception about retirement. We noticed some similarities between the three groups according to their retirement perception. Most of the participants highlighted the importance of remaining healthy and active after their retirement. They perceived their post- retirement period as pleasant and also many conveyed the intention to engage in new activities.

The next theme which emerged from the discussion was the increased uncertainty generated mainly by the current economic conditions. Some of the participants expressed their uncertainty about the quality of life after retirement and about future pension's evolvement. Some of the younger participants felt more uncertain about the issues of the state retirement age, the present economic situation and about the labor conditions.

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<sup>1</sup> The discussions conducted during the period of May-July 2012



*Retirement concerns*

The following section describes the theme of retirement concerns. The aspects that emerged from this theme were related primarily to financial concerns followed by health, care, labor, and living concerns. Participants often combined and related financial concerns with the prospect of good life after retirement. More than the other, the younger group concerned about the financial conditions than their older colleagues.

*The majority of the participants recognized the importance of saving for their retirement. Some related financial concerns with independence. Participants recognized that staying healthy is very important of having a good quality of life after retirement. In addition, we found that independence was often combined to living concerns and financial concerns. The image of a nursing house admission does not look very appealing to some of the respondents.*

*Pension policies*

We provide two main aspects: pension autonomy and investing in new asset class. The theme of pension autonomy by increasing freedom of choice in pensions was discussed thoroughly. The analysis of the theme revealed a positive attitude with some self-efficacy concerns.

The majority of the participants indicated a positive stance toward increased pension autonomy. Often, participants related the notions of freedom of choice and pension autonomy to the notions of self-control, increased responsibility and decreased collectivity. Some members pointed the complexity of such decisions, the lack of knowledge, and that an increased level of involvement will be time consuming. Some managers suggested that in the case of increase autonomy, people should also be protected by making unwise choices.

In addition to pension autonomy, investing according to certain criteria emerged as a second pension policy. Most of the members expressed a positive view on investing in sustainability and in impact investments and, in general, investing in new asset class. Nevertheless, they pointed at ensuring financial security and pension in combination to the organization's responsibility in society.

**INDIVIDUALS' PERCEPTION ON IMPACT AND SUSTAINABLE INVESTING**

Participants ranked six investment criteria according to their perceived importance: investing with primary goal on maximizing pension and on financial efficiency (pension); investing according to sustainability criteria (sustainability); invest in improving living conditions (house), invest in improving working conditions(labor); invest in healthy aging (health); and support social initiatives here and now (social initiatives). Participants were informed by the moderators that investing in new asset class imposes a tradeoff between financial efficiency and social return.

On average, the group of 45+ ranked at the top of importance the criteria sustainability and social initiatives. Their younger colleagues ranked working conditions and investing according to sustainable criteria as the most important. In contrast to the two member groups, in average, the criterion of pension efficiency, was ranked as the most important aspect by managers followed by investing in healthy aging.

Furthermore, results show a strong negative relationship between pension and social initiatives and a weak negative relationship between social initiatives and sustainability. The two distinguished clusters highlight the discrepancy between members and managers views on the investment criteria. Managers, at the left half part of the plot, give less importance to the social return and they focus on financial efficiency (negative social return dimension), while the majority of members, depicted at the right half part, have a stronger preference to the five social investment criteria (positive social return dimension).

## DISCUSSION

The ongoing debate over pension reforms, underlined by demographic and financial factors, is highly placed in the Dutch political agenda. The plethora of information about the necessity of new policy measures and the forthcoming changes on pension arrangements have created an environment of increased uncertainty which in turn contributed to a higher level of retirement concerns. During the last financial turmoil, some pension funds faced low pension funding ratios due to increased liabilities as a result of lower returns and decreased assets value. The Dutch regulator compelled these pension funds to take necessary measures and implement five years recovering plans in order reach again the prior to financial crisis ratio levels.

Nijboer and Boon, (2012) argue that policymakers should reform the Dutch pension system toward the direction of a libertarian paternalistic interventions as has been described by Thaler's and Sunstein's, (2008) offering more freedom of choice. However, some other scholars question whether individuals are willing to have increased pension autonomy. Boeri et al., (2002) posit that the opposition to reforms is high even among those aware of unsustainability of the pension system. Els et al., (2003) assert that Dutch prefer their pension plan being managed by experts and are willing to pay higher contributions in exchange for guaranteed benefits. Botti and Iyengar, (2006), argue that individuals' choice is moderated by the level of expertise i.e. greater the expertise the more chances an individual has to engage in complex decision process. Van Rooij et al., (2007) argue that individuals' doubts for their financial skills, high risk aversion and the status quo bias make Dutch reluctant to any changes in the pension structure. Van Rooij et al., (2011) found that most of the Dutch prefer a defined benefit pension scheme rather a defined contribution, due to status quo bias. However, as Thaler & Sunstein (2008,

p.248) state “When the choices are hard and the options are numerous, requiring people to choose for themselves might be preferred and might not lead to the best decisions. Given that people would often choose not to choose, it is hard to see why freedom lovers should compel choice even though people (freely and voluntarily) resist it.”

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## THE EFFECT OF RESPECT AND RAPPORT ON RELATIONSHIP QUALITY AND CUSTOMER LOYALTY

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### ABSTRACT

The development of successful long-term relationships with customers is considered to be a sustainable competitive advantage and the enhancement of relationship quality (RQ) is a very important issue for firms today especially in services. The purpose of this study is to test the effect of respect and rapport on RQ and customer loyalty (CL) in private doctor-patient relationships. A survey was carried out involving a convenience sample of 600 customers of professional doctors from several specialties operating in the district of Athens, Greece. Data was analysed with PLS-PM. Results showed that Rapport is the most significant antecedent of RQ followed by two dimensions of respect, responsibility and understanding. Also, respect and rapport indirectly affect CL through RQ but there is also a direct effect between rapport and responsibility and CL. Findings present managerial implications. Future research should validate results in multi-context or multi-country studies.

**Keywords:** *Relationship quality, respect, rapport, customer loyalty, PLS, health services*

### INTRODUCTION

In today's highly competitive environment that is characterised by rapidly changing customer needs, the development and maintenance of strong, sustainable, and mutually beneficial relationships with customers is considered to be a significant competitive advantage for firms (Wong *et al.*, 2007; Athanasopoulou, 2009; 2012). In services, the importance of relationships is even more pronounced and service providers are increasingly using relationship-based strategies to compete in the marketplace (Rust *et al.*, 2004; Nguyen & Mutum, 2012). Therefore, maintaining and enhancing relationship quality has become a very important issue for firms. Relationship quality has been defined as a bundle of intangible value that augments products or services and results in an expected interchange between buyer and seller (Levitt, 1986). Research shows that relationship quality can replace service quality and customer satisfaction as key superior performance driver (e.g. Palmatier *et al.*, 2006; Rauyruen & Miller, 2007) and affects significantly customer loyalty (Roberts *et al.*, 2003; Vesel & Zabkar, 2010; Yu & Tung, 2013).

The management of relationship quality is particularly important in high credence services where it is very difficult for customers to evaluate service quality even after they have used the service. In such cases, the development of a good relationship with the service provider is critical for long-term customer retention. When a service is difficult to evaluate, consumers often look to other cues, such as aspects of interaction in order to assess service quality (Parasuraman et al., 1985) and reduce their uncertainty regarding the service. The concepts of respect and rapport have been shown to affect relationship quality (Ali & Ndubisi, 2011) of dental clinic customers and their dentists. The purpose of this study is to test the effect of respect and rapport on relationship quality and customer loyalty in private doctor-patient relationships. The paper is structured as follows. First, we review the literature and develop research hypotheses; second, the methodology is presented; then results are analysed and discussed, and finally we conclude with managerial implications; limitations, and suggestions for further research.

## LITERATURE REVIEW AND CONCEPTUAL DEVELOPMENT

The development and maintenance of mutually beneficial relationships with customers is at the heart of today's marketing paradigm and considered to be a sustainable competitive advantage for firms (Wong et al., 2007; Athanasopoulou, 2009; 2012). The establishment of successful relationships has many advantages for firms. When customers develop relationships with providers they usually spend more; are enthusiastic advocates of firms; spread positive word-of-mouth; refer service providers to family and friends (Harris & Good, 2004), and steadily support the profitability of firms (Hayes, 2008). In services, the importance of relationships is even more critical for two main reasons. First, the inseparability of production and consumption in services suggests that providers and customers are interdependent (Solomon et al., 1985). Second, customers cannot evaluate services before consumption and relationships serve as a way to reduce the risk involved in service consumption. When a service is difficult to evaluate, consumers often look to other cues, such as aspects of interaction in order to assess service quality (Parasuraman et al., 1985). Thus, by developing a close, personal relationship with customers, firms may retain customers longer. Therefore, the development of a quality relationship with customers has become very important for firms.

The concept of relationship quality has been defined as the quality of interaction between a firm and its customers (Gummesson, 1987). In services, Crosby et al. (1990) define RQ as when "the customer is able to rely on the salesperson's integrity and has confidence in the salesperson's future performance because the level of past performance has been consistently satisfactory". Grönroos (2000) defines RQ as "the dynamics of long-term quality formation in ongoing customer relationships". Researchers agree that relationship quality is not simple and in fact, it is a higher-order construct made of several

distinct, though related dimensions (Crosby *et al.*, 1990; Kumar *et al.*, 1995; Roberts *et al.*, 2003). Relationship quality is generally conceptualized as a multi-dimensional construct consisting of customer satisfaction; trust, and commitment but lately various researchers, especially in retail contexts, measure RQ based on a general measure of customer perception (e.g. Ndubisi, 2007; Rasila, 2010; Khoo-Latimore *et al.*, 2010; Ali & Ndubisi, 2011; Athanasopoulou, 2012).

The literature on the antecedents of relationship quality is vast and covers many related concepts which are buyer-related; seller-related, or relationship-related (Athanasopoulou, 2012). Two of the relatively new antecedents that have emerged are respect and rapport (Gremler & Gwinner, 2000; Ali & Ndubisi, 2011).

The concept of respect is found in psychology (Langdon, 2007) and one of its four themes involves respect as caring. This helps us to understand the concept of respect towards customers (Langdon, 2007; Dillon, 1992). This study adopts the dimensions of respect put forward by Dillon (1992) and used by Ali & Ndubisi (2011). These are attention and valuing to particularity; understanding, and responsibility. Attention and valuing to particularity means appreciating and treating each person as an individual and accepting that they are different from others (Dillon, 1992). Understanding is about trying to understand a person's own consciousness; his activities, and his purposes. Finally, responsibility involves caring for a person in the sense of helping them to pursue their goals and satisfy their needs and wants (Dillon, 1992). All these dimensions are important in the context of doctor-patient relationships where caring for the patient is one of the most important traits of a physician. Therefore, we hypothesise that all three dimensions of respect affect significantly relationship quality:

H1a: Attention and valuing to particularity affects significantly relationship quality

H1b: Responsibility affects significantly relationship quality

H1c: Understanding affects significantly relationship quality

Furthermore, rapport is another concept similar to respect that has been used in a number of disciplines studying human interaction including marketing; psychology, and education (e.g. .

Faranda & Clarke, 2004; Weitz *et al.*, 2007), although a clear definition has not been developed yet. Carey *et al.* (1986) define rapport as a quality of relationships characterized by satisfactory communication and mutual understanding. Tickle-Degnen and Rosenthal (1990) suggest that people experience rapport when "they click" with one another or feel the good interaction due to chemistry. Gremler and Gwinner (2000) define rapport as the character of interaction between employees and suggest that rapport consists of two important dimensions; namely enjoyable interaction and personal

connection. Rapport has been shown to influence relationship quality in dental services (Ali & Ndubisi, 2011). Therefore, the following hypothesis is proposed:

H2: Rapport building affects significantly relationship quality

Both respect and rapport deepen relationships between service providers and customers and lead to sustainability of relationships over time. Therefore, we can also argue that they affect customer loyalty. The link between rapport and loyalty has been examined by Gremler and Gwinner (2008) whereas the effect of respect on customer loyalty has not been researched before. In this study, we argue that both respect, with all of its three dimensions, and rapport affect customer loyalty directly. Therefore we propose the following hypotheses:

H3a: Attention and valuing of particularity affects significantly customer loyalty

H3b: Responsibility affects significantly customer loyalty

H3c: Understanding affects significantly customer loyalty

H4: Rapport building affects significantly customer loyalty

Finally, relationship quality has been shown to affect customer loyalty in many contexts (e.g. Henning-Thurau et al., 2002; Sanchez et al., 2008; Vesel & Zabkar, 2010). Therefore, we can argue that there is also an indirect link between respect and rapport and customer loyalty through relationship quality. As a result we hypothesise that:

H5: Relationship quality significantly affects customer loyalty

The proposed model used for this study is presented in Figure 1.

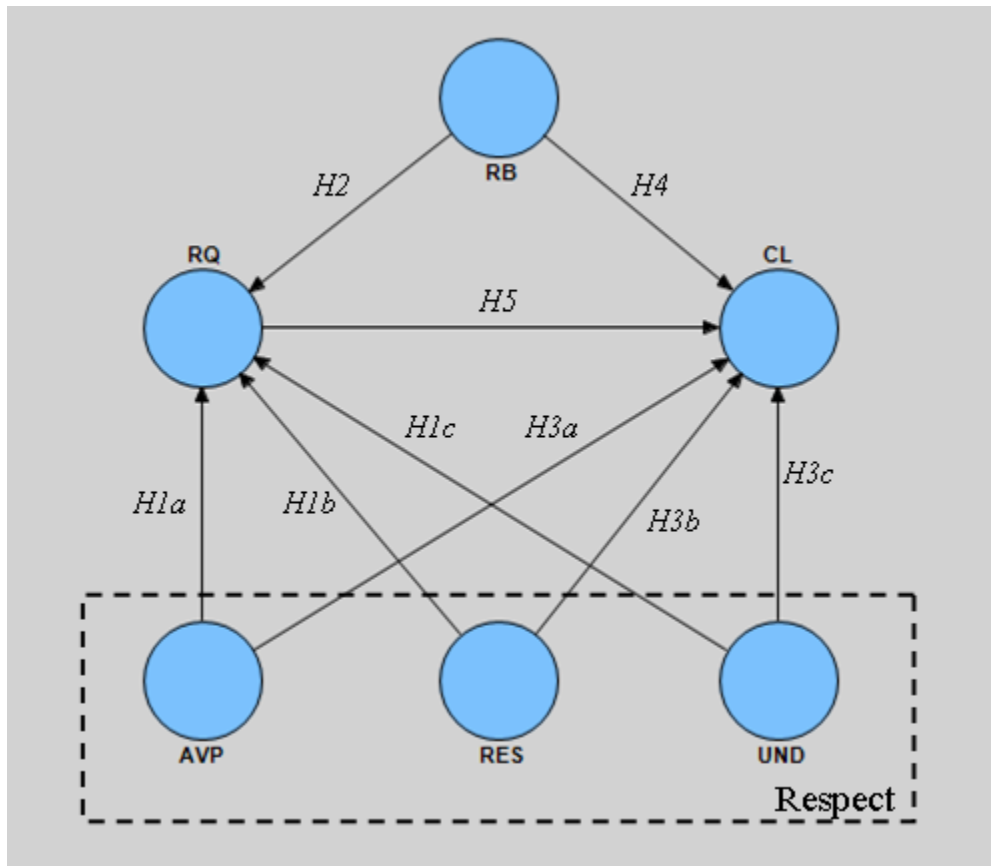


Figure 1: Proposed model

## METHODOLOGY

The population of this study is customers of professional physicians from several specialties operating in the district of Athens, Greece. Research participation was purely voluntary. To reach participants a convenient sampling method was used. Twenty appropriately trained students were selected on the basis of some background experience in research and data collection to approach 30 individuals each. Data were collected using a structured questionnaire with questions in prearranged order. The scales used to operationalize the concepts of the proposed model were adopted from different sources to suit the study. Items for Respect and Rapport Building were adapted from Ali and Ndubisi (2011). The items for Relationship Quality were adapted from Hennig-Thurau (2000) and Ndubisi (2007) and for Customer Loyalty from Zeithaml et al. (1996) and Fullerton (2003). All items were measured on a seven-point Likert scale ranging from 1 "strongly disagree" to 7 "strongly agree".

The fieldwork was conducted in January and February 2014, over a period of four weeks, and the data were collected during operating hours of doctors' private practices. A total of 600 questionnaires were distributed and 521 were collected. However, 21 were rejected because of incomplete data, resulting in 500 usable responses, yielding a net response rate of about 83%. The demographic profile of the



respondents is shown in Table 1. The participants, in terms of gender, are almost equally distributed. Ages of between 18 and 34 years old (58%) were in majority. Most of the respondents had at least a university degree (53%) and work either in the private or the public sector (53%).

Profile	Description	Responses	Percentage
Gender	Male	243	49%
	Female	257	51%
Age	18-24	181	36%
	25-34	111	22%
	35-44	65	13%
	45-54	56	11%
	55-64	41	8%
	64+	46	9%
Education Level	Up to High school	136	27%
	Colledge	99	20%
	University	232	46%
	Prostgraduate	33	7%
Employer	Private	136	27%
	Public servant	129	26%
	Self-employed	62	12%
	Unemployed	173	35%

*Table 1: Respondent's demographic profile*

The method of Partial Least Squares (PLS) analysis (Gefen & Straub, 2005), an implementation of Structural Equation Modelling (SEM) with SmartPLS 2.0 (M3) (Ringle et al., 2005), was applied to test the measurement model and the proposed hypotheses. There are two main reasons to use the PLS technique. First, PLS path modelling has less strict requirements on sample size and residual distributions than covariance-based SEM techniques (Chin et al., 2003). Second, PLS-PM is used for plausible causality exploration (prediction) rather than for confirmatory causality testing (Wold, 1981). The aim of the study is much closer to the former causality testing since it is related to the prediction of customers' future intentions based on the optimal linear relationships between the proposed latent constructs. Therefore, PLS is considered more appropriate for this study than covariance-based SEM techniques.

## RESULTS

Data analysis involved a two-phase approach (Gefen & Straub, 2005) in order to assess the reliability and validity of the measures before using them in the research model. The first phase includes the analysis of the measurement model, while the second phase examines the structural relationships among latent constructs.

#### *Assessment of the measurement model*

The test of the measurement model involves the estimation of reliability; internal consistency, as well as the discriminant validity of the study's first-order reflective constructs, which indicate the strength of measures used to test the proposed model (Fornell, 1987). Individual item reliability is adequate when an item has a factor loading greater than 0.7 on its respective construct, which implies more shared variance between the construct and its measures than the error variance (Gefen & Straub, 2005). The factor loadings of all items, as shown in Table 2, exceed 0.72 providing strong support for the reliability of the latent constructs.

Internal consistency is assessed using two measures, Cronbach's alpha and composite reliability (Fornell & Larcker, 1981). Gefen and Straub (2005) suggest that a value of 0.7 for these two measures provides adequate evidence for internal consistency. As shown in Table 2, both Cronbach's alpha and composite reliability (CR) of all reflective measures included in the study exceed 0.88 and 0.91 respectively suggesting that all items are good indicators of their respective components.

Discriminant validity was assessed in two ways. First, the Average Variance Extracted (AVE) is examined. As shown in Table 2, all AVE values are greater than 0.67 which, in turn, exceeds the recommended cut-off value of 0.5 (Gefen & Straub, 2005). Second, the square root of AVE extracted from each construct, as shown in the diagonal of Table 3, is compared with the correlations among constructs, the off-diagonal entries. Table 3 shows that the square root of AVEs for all first-order constructs are higher than their shared variances. These findings provide strong evidence of discriminant validity among the first-order constructs.

Item $\leftarrow$ Construct	Mean Value	Std. Deviation	Std. Loadings	Std. Error	Critical Ratio	Composite Reliability	Cronbachs' Alpha	AVE
E1 $\leftarrow$ AVP	5.13	1.38	0.84	0.02	50.82	0.91	0.88	0.67
E2 $\leftarrow$ AVP	5.22	1.37	0.87	0.02	52.72			
E3 $\leftarrow$ AVP	5.31	1.37	0.87	0.02	56.85			
E4 $\leftarrow$ AVP	5.15	1.53	0.79	0.02	34.99			
E5 $\leftarrow$ AVP	5.14	1.54	0.72	0.03	27.57			
E6 $\leftarrow$ RB	4.95	1.48	0.81	0.02	47.42	0.95	0.94	0.67
E7 $\leftarrow$ RB	5.24	1.32	0.86	0.01	63.25			
E8 $\leftarrow$ RB	5.14	1.30	0.86	0.01	66.67			
E9 $\leftarrow$ RB	4.72	1.56	0.75	0.03	29.29			
E10 $\leftarrow$ RB	5.21	1.40	0.82	0.02	47.55			
E11 $\leftarrow$ RB	4.35	1.63	0.84	0.02	54.91			

E12 ← RB	4.32	1.73	0.78	0.02	39.20			
E13 ← RB	5.02	1.45	0.82	0.02	41.91			
E14 ← RB	4.36	1.71	0.81	0.02	38.84			
E15 ← RES	5.40	1.37	0.87	0.02	54.28	0.94	0.92	0.76
E16 ← RES	5.45	1.32	0.89	0.01	75.15			
E17 ← RES	5.18	1.51	0.85	0.02	52.44			
E18 ← RES	5.16	1.45	0.90	0.01	79.97			
E19 ← RES	5.40	1.45	0.86	0.01	58.07			
E20 ← UND	5.67	1.25	0.82	0.02	43.91	0.91	0.87	0.73
E21 ← UND	5.15	1.33	0.88	0.01	59.82			
E22 ←- UND	5.09	1.36	0.81	0.03	30.32			
E23 ← UND	5.27	1.32	0.90	0.01	77.70			
E24 ← RQ	5.01	1.46	0.88	0.01	62.63	0.94	0.91	0.74
E25 ← RQ	4.27	1.68	0.76	0.03	29.79			
E26 ← RQ	5.13	1.43	0.88	0.01	59.44			
E27 ← RQ	5.12	1.40	0.91	0.01	74.89			
E28 ← RQ	5.18	1.47	0.88	0.01	65.02			
E53 ← CL	5.14	1.53	0.83	0.02	35.06	0.95	0.94	0.77
E54 ← CL	5.11	1.53	0.87	0.02	47.73			
E55 ← CL	5.35	1.49	0.88	0.02	52.58			
E59 ← CL	5.26	1.53	0.90	0.01	88.47			
E60 ← CL	5.22	1.55	0.91	0.01	95.74			
E61 ← CL	5.34	1.55	0.89	0.01	75.42			

Notes: AVP-attention and valuing to the particularity; RB-rapport building; RES-responsibility; UND-understanding; RQ-relationship quality; CL-customer loyalty

Table 2: Item's descriptive statistics and constructs' psychometric properties

	<b>RB</b>	<b>AVP</b>	<b>RES</b>	<b>UND</b>	<b>RQ</b>	<b>CL</b>
<b>RB</b>	<i>0.82</i>					
<b>AVP</b>	0.68	<i>0.82</i>				
<b>RES</b>	0.79	0.71	<i>0.87</i>			
<b>UND</b>	0.71	0.65	0.79	<i>0.85</i>		
<b>RQ</b>	0.78	0.61	0.77	0.74	<i>0.86</i>	
<b>CL</b>	0.72	0.60	0.74	0.68	0.79	<i>0.82</i>

Note: Diagonal elements (italics) are the square root of the variance shared between the constructs and their measure (AVE).

Table 3: Intercorrelations of latent constructs

#### *Assessment of the Structural Model and Hypotheses Testing*

The PLS method was also used to confirm the hypothesised relationships between constructs in the proposed model. The significance of the paths included into the proposed model was tested using a bootstrap resample procedure. In assessing the PLS model, the squared multiple correlations ( $R^2$ ) for each endogenous latent variable were initially examined and the significance of the structural paths was evaluated. The proposed relationships are supported if the corresponding path coefficients have the proposed sign and are significant.

After performing the PLS analysis, results are presented in Table 4.

Relationship	Path coefficient	Standard Error	T-Statistics	R <sup>2</sup>	Q <sup>2</sup>	Hypotheses test
AVP →RQ	-0.01	0.05	0.18	0.70	0.51	H1a not supported
RES →RQ	0.26	0.06	4.70			H1b supported
UND →RQ	0.25	0.06	4.50			H1c supported
RB →RQ	0.40	0.06	7.25			H2 supported
AVP →CL	0.05	0.05	1.06	0.68	0.52	H3a not supported
RES →CL	0.19	0.06	2.94			H3b supported
UND →CL	0.07	0.06	1.25			H3c not supported
RB →CL	0.12	0.06	2.05			H4 supported
RQ →CL	0.47	0.05	8.59			H5 supported

Table 4: Estimated results of the structural model and hypotheses tests

The most significant factor that affects relationship quality in doctor-patient relationships is Rapport Building ( $\beta = 0.40$ ;  $t = 7.25$ ), followed by Responsibility ( $\beta = 0.26$ ;  $t = 4.70$ ) and Understanding ( $\beta = 0.25$ ;  $t = 4.50$ ). Attention and valuing to particularity does not affect relationship quality since the relevant coefficient is not statistical significant. Therefore, hypotheses H1b, H1c and H2 are confirmed since they were found to be statistically significant and the relevant path coefficients have the hypothesized signs, explaining 70% of the variance in relationship quality, while H1a is not confirmed.

With regards to the direct effects on Customer Loyalty, Relationship Quality is the most important antecedent ( $\beta = 0.47$ ;  $t = 8.59$ ), followed by Responsibility ( $\beta = 0.19$ ;  $t = 2.94$ ) and Rapport Building ( $\beta = 0.12$ ;  $t = 2.05$ ). Attention and valuing to particularity and Understanding do not directly affect Customer Loyalty, since their coefficients are not statistically significant. Thus hypotheses H3b, H4 and H5 are confirmed since they were found to be statistically significant and the relevant path coefficients have the hypothesized signs, explaining 68% of the variance in Customer loyalty, while hypotheses H3a and H3c are not confirmed. To further support the predictive validity of the proposed model, the appropriateness of the proposed model is evaluated using the Q<sup>2</sup> measure. This measure indicates the percentage of blind-folded data that can be recreated by the specified model. As shown in Table 4, the blindfolding results of Q<sup>2</sup> for all endogenous constructs, are all greater than 0.5 (threshold level is zero), indicating that the predictive ability of the model is very good.

## MANAGERIAL IMPLICATIONS, LIMITATIONS AND SUGGESTIONS FOR FURTHER RESEARCH

The findings present many implications for management of relationships in high credence services. First, the most important antecedent of relationship quality is rapport followed by responsibility and understanding. These findings agree with Ali & Ndubisi (2011) although in this study the effects of responsibility and understanding on RQ are almost equal. The importance attributed to rapport also agrees with the conclusions of Yu (2009) who argues that establishing rapport is the very first step in

the development of an effective nurse-patient relationship. It seems that as with personal friendly or romantic relationships, having a close connection with the physician where interaction is enjoyable is the most important thing for building a quality relationship. Furthermore, the direct influence of rapport and responsibility on customer loyalty shows that customer loyalty can increase even without a long-term relationship between doctors and patients. If doctors connect effectively with customers and show that they care and help customers realise their goals, then loyalty increases. Of course the indirect influence of respect and rapport on customer loyalty through relationship quality is more powerful since the development of a relationship increases the effect of both respect and rapport.

This study expands knowledge on the antecedents of RQ in services and its effect on CL. However, it refers only to one type of service in one country. Future research can validate these results in multiple service contexts and in multi-country studies in order to examine the role of culture in customer perceptions.

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## LEADING FOR TEAM SYNERGY – THE CHALLENGE OF GETTING EXTREMELY TALENTED INDIVIDUALS TO WORK TOGETHER

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### ABSTRACT

Teamwork is a skill which many leaders seek to instil in their collaborators. However, it has proven to be elusive in many instances, which thus calls for new approaches. What factors can contribute to superior teamwork, especially amongst superstars? The article discusses what makes a good team player, which is dependent, in part, on good leadership. Drawing on some examples of team play, most notably from sport and the Euro Mediterranean region, individual talent is seen to be something different to what it takes to inspire teammates to victory. The challenge of getting talented individuals to work together is a task becoming more frequent, in organizations as well as in sport. Affable personalities and socially gifted people, in management as well as amongst players / employees, will increase in demand as leaders realize that superstars and other extremely talented individuals may distance themselves from teammates in competitive environments, making teamwork all the more difficult if we still measure [team] success in traditional ways. Attributing a prize to the best team player, the player who is voted to have contributed most to team goodwill, may entice talented individuals to contribute to the team more. The focus needs to be on the team rather than on the individual and if a team wins then, most certainly, all will have played an important part.

**Keywords:** *Cambridge University Boat Club, F.C. Porto, Seve Ballesteros, soccer, superstars, teamwork, Tiger Woods*



## DISCUSSION

A number of studies have focused upon teamwork, as “some collaborative efforts achieve spectacular synergies, [while] many actually backfire – wasting time, money, and resources” (Hansen, 2009, cover-flap). “If people knew how to collaborate well, the world would simply work better” (Hansen, quoted in Collins, 2008, p.ix). Teamwork has been linked to leadership, as “leaders create and change cultures... if the group’s survival is threatened because elements of its culture have become maladapted, it is ultimately the function of leadership to recognize and do something about the situation” (Schein, 1992, p.5).

What makes superior teams work as they do, with each member contributing to the whole, which turns out to be more than the sum of the parts? Global consulting companies such as Accenture, where one of the authors has worked, depend on it. But we don't only see teamwork in corporations. We actually most notably see teamwork in sport. And corporations worldwide have much to learn from this area of human endeavour.

According to a study of a victorious team of rowers at the Cambridge University Boat Club, certain team members make the team perform better. Even if they are not the best of specialists, they may excel at making the team thrive:

“a socially gifted individual may help provide the glue to keep the crew together... For example, the 2007 Cambridge crew included one oarsman who was included in the crew not based on his individual technical skills but because he seemed able to get a higher level of performance out of the rest of the crew. His affable personality was able to defuse conflict and help the crew gel socially.” (de Rond and Holland, 2008, p.32).

Cristiano Ronaldo, recent winner of the Ballon d'Or 2013, naming him world soccer player of the year (he had already won in 2008) has excelled in a number of teams, from Sporting Club of Portugal to Manchester United (UK) to Real Madrid (Spain) to the national team of Portugal. This may be difficult to achieve – to be accepted in various environments, by different people, and under different leaders. In contrast, Argentinian soccer player and rival Lionel Messi (winner of four Ballon d'Or awards) has always played at the same club – F.C. Barcelona (as well as having played for the Argentina national side). Would Messi excel at any club he chose to play at? A number of players have excelled at certain clubs, but some not after changing clubs. This shows the importance of the external environment (made up by the fans, the players and by the clubs themselves), winning in teams not depending solely on the player.

Do team members have to be different or should they be as similar as possible?

Teams require different talents. As egos stretch to and fro, people have to accommodate each other. But there is also a battle for space, in some teams – even in the best of teams. And some teams may perform all the better for it.

Porto Football Club (F.C. Porto) is an example of what teamwork and superior leadership can achieve. F.C. Porto has one of the best track records in recent European club soccer history, despite its comparatively low annual budget. Research has proven that club football is dominated by rich clubs and “inequality has arisen everywhere, between rich and poor players, clubs and nations” (Castillo, 2007, p.25). How then to explain the two European Club Champion Cups won by Porto, in 1987 and in 2004? F.C. Porto is one of the strongest brands in soccer (ranked 21st in Europe by BBDO Consulting, in 2007, in a listing topped by Real Madrid C.F.), due to its sports success and its ability to produce winners. F.C. Porto is known for its extremely strong and distinctive culture, based on discipline but also on passion, having produced star players as well as star coaches, who have moved on to bigger clubs after being successful at F.C. Porto.

People change constantly, as they learn to deal with different situations and evolve. Teams are similar – the same people in a team actually also evolve over time, after each collective experience, making the team better, or certainly different to what it was.

Not all change is successful. Thus the abundant literature on leadership and change (Schein, 1992; Kotter, 1996; Kotter and Cohen, 2002). Certain environments seem to favour certain leaders – for example, situations with less time for decisions may require leaders who are naturally more autocratic; while situations with more time for decisions and a need for innovative input from collaborators may require naturally more participative leaders. According to Dionne et al. (2010, p.1035) “team performance improvement is achieved by participative leadership only when members have both heterogeneous domains of expertise and strong mutual interest.” Zwetsloot et al. (2014, p.1) state further that “participative leadership has a positive effect on job satisfaction.” Certain cultures, however, expect autocratic and somewhat distant leaders. Whether more autocratic or participative, a real challenge for leadership is to get extremely talented individual performers to work together with teammates for the common good. Cristiano Ronaldo will need his teammates to pass the ball to him... What factors can contribute to superior teamwork, especially amongst superstars? This area has not, to our knowledge, been the subject of much research, as table 1 shows – “superstars” and “teamwork” are not words to be found together in the abstract, title or keywords in Science Direct database journal articles.

**Table 1.** Search form N°1 (format based on Saur-Amaral, 2010).

Content	Explanation
Objective of the search	Reveal whether research into the area of superstars and teamwork has been undertaken by a significant number of researchers and reveal, also, how recent the interest is in this topic
Data base	Science Direct, as this is a major academic data base
Date of search	13-05-2014
Inclusion criteria	Articles published in journals; all years; containing “teamwork” and “superstars” in the abstract, title, or keywords
Total number of articles found	0
First article dating from	Not applicable (no articles found)

Certain sports are more popular in a singles format. Take tennis, for example, and golf, too. In an article about the domination of Tiger Woods on the toughest and richest professional golf circuit in the world – the US PGA Tour – Brown (2011) showed that adversaries have played worse when he was present – returning higher scores especially when he was in contention for the lead:

“On average, golfers’ first-round scores are approximately 0.2 strokes worse when Tiger Woods participates relative to when Woods is absent. The overall tournament effect is 0.8 strokes. The adverse superstar effect varies with the quality of Woods’s play.” (Brown, 2011, p.982).

So,

“when Woods played in a tournament during his heyday, the other golfers’ scores were substantially worse compared to tournaments where Woods did not play. Instead of raising their game to play the superstar, golfers facing Woods tended to wilt” (The University of Chicago Press, 2011).

Brown looked at PGA scores during the period from 1999 to 2010, which is when Tiger Woods was playing at his best. But this intimidation factor has not occurred in team golf to the same degree. In the very mediatic Ryder Cup golf team event (12 player teams, USA vs. Europe, played every two years) players such as the late Spaniard Severiano (Seve) Ballesteros seemingly had a bigger impact than global superstar Tiger Woods, having inspired lower-ranked fellow-team players to excel and become world class players. For example, “to foster a sense of passion in his 2010 European Ryder Cup team, golfer Colin Montgomerie relied on his close friend Seve Ballesteros... After their victory, Montgomery fittingly credited their half-point winning margin to Ballesteros’s inspiration” (de Rond,

2012, pp.36-37). Tiger Woods has played the Ryder Cup event 7 times since 1997 but has only been on the winning team once (1999). In the period 1997-2012 Team Europe beat Tiger Woods and the USA Team 6 times (Team USA also won in 2008 but Tiger did not play) (Ryder Cup Profile Tiger Woods). This despite the USA Ryder Cup team generally sporting the most best-ranked players in the world rankings. Seve Ballesteros has been an inspiration to team Europe even after passing away: "Dressed in the colours of the late Seve Ballesteros, Europe on Sunday [2012 Ryder Cup] pulled off one of his trademark great escapes in what will go down as the "Miracle of Medinah" as they equalled the biggest singles comeback in Ryder Cup history to win 14 ?-13 ?" (Ryder Cup, 2012). Tiger Woods does appear in the top Ryder Cup stats for Team USA for having been the youngest player on Team USA in 1997 and 1999 (at 21 years of age and 23 years of age, respectively) (Ryder Cup, 2004). This is remarkable in itself. Seve, for his part, holds one of the best point percentages for team Europe (61%) as well as points won (22.5 points) (Ryder Cup, 2004). Seve was a great team player and in doubles "he formed the greatest Ryder Cup partnership of all time with [fellow Spaniard] José Maria Olazábal, winning 11, halving two and losing only two of their matches together." (Ryder Cup News Ballesteros, 2012). So, possibly, some people are strengthened by teams, both giving and drawing strength from them, while others may be weakened by them, teams making them less formidable and more beatable. Significantly though, the Ryder Cup in golf requires players to play as a team for a brief period when normally, week-in, week-out, players actually compete against each other for considerable amounts of money and fame. It may be difficult, in particular for superstars, to play as a team as there is some degree of jealousy on professional sports circuits, given the fame and fortune that some players have achieved (Mansfield and Oliveira, 1994). A number of superstars also tend to be loners and may retreat to a distance (Mansfield and Oliveira, 1994), on and off the competitive stage, to minimize certain bad feelings but also to optimize their concentration levels. However, this perhaps will not benefit a team when superstars are required to be a part of one. What is the solution? Investing money, time and effort in team play, while employing very socially apt individuals, in management as well as amongst the players, may be good advice to Ryder Cup captains for Team USA, albeit not easy to put in practice.

Is it possible to be strong both alone and in teams? That ability does exist (Severiano Ballesteros also won 5 major singles tournaments, versus Tiger Woods' tally of 14 wins in the majors), but it may be in short supply. However, we are evermore required to work together, to produce in teams, indeed before and after work – at the corporation and at home, with our families. And this does not make life simpler, but certainly rather more complex, especially if you are not a naturally-gifted team player. But much as our culture in many respects may be more nurture than genes, depending on what individuals have done during their childhood and formative years, so can the ability to work in teams

be developed further until one excels – and the prize is well worth the effort – as many an example has shown, over the years, in many different industries. In music, for example, the success of the Beatles, “one of the most famous rock bands ever” (Gladwell, 2008, p.55), and of other music bands, such as the Bee Gees, Dire Straits, U2, and more recently Coldplay, has blessed us with their collective talent to perform and produce tunes which stay in our minds and in our hearts. Certain musicians have been more successful in bands than individually, showing the importance of team input and collaboration. Currently, to be able to work well in teams is a skill considered to be a necessity in organizations. Working together may be all the more difficult when big egos are involved. The way [team] success is measured may have to change. While at times individuals do work alone in organizational settings, this is increasingly the exception rather than the norm. Increasingly team work and team players are needed, and so gifted team facilitators need to be developed and sought out, and explicitly rewarded for their efforts, if improved teamwork levels are to be attained. Attributing a prize to the best team player, the player who is voted to have contributed most to team goodwill, may entice talented individuals to contribute to the team more.

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## MAKING SENSE OF INNOVATION

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### ABSTRACT

The aim of the study was to make sense of what is meant when the word Innovation is used, as reflected upon by a number of academics working in the field. The hypothesis was that there are general broadly shared components that make up this concept while there are others that are less widespread and can be regarded as collateral, but which are fundamental for the final results of the innovative processes.

The work was undertaken on the occasion of an Italian Conference on innovation. Fifty-two papers were presented and a random sample was taken of 50% of the authors. These were asked to indicate the first 5 words that best described the concept of innovation from their own point of view. The replies collected were 23, or 88% of the total sample.

The words were drawn up together into a list of 69 different words. The frequency of the words was then counted and an innovation cloud was constructed that showed their distribution in the minds of these researchers. The word list was subsequently analysed, with comments made on certain aspects. The terms collected from the sample were then arranged in conceptual categories so as to render them utilisable also from a managerial perspective.

The associations revealed have a specific value. They not only offer a better understanding of innovation phenomenon but also potentially in operative terms. This because there is possible utility for management wishing to act on the so-called “first words” on the basis of company innovation processes rather than simply trusting to the better-known conceptual guides generally available in the field of innovation.

**Keywords:** *mental map, innovation, creativity, change, perceptions, management*

### AIMS AND SCOPE

On the occasion of a Conference on the relationship between innovation and the competitiveness of the firm, the perceptions of a sample of innovation experts were gathered to see whether any further lines of enquiry opened up beyond those ideas that usually come up in the academic literature.

Taking up the first five words to which each of the interviewees gave particular value in relation to innovation processes, we sought to give some meaning and to deepen the understanding of the concept and the process of innovation itself.

We thus examined the trends in the literature and went on to analyse the results obtained that could provide new perspectives for further development of the studies as well as food for managerial thought on ways of exploring “the new of innovation”.

## UNDERSTANDING INNOVATION: THE PERSPECTIVE FROM THE LITERATURE

### *Lexical distinctions, conceptual connections and illustrations and classifications*

Even though the studies on the subject of innovation amount to an “emerging scientific field” (Fagerberg and Verspagen, 2009) that has developed only in recent times, the concept of innovation in enterprise has long attracted the interest of academics from different disciplines.

The understanding of what is meant by innovation is rooted in a terminological debate replete with lexical distinctions, conceptual connections and illustrations and classifications, beginning with the well-known works of Schumpeter (1934 and 1942) who was the first to concern himself with a differentiation between the terms *innovation* and those such as *invention* and *discovery* (see also Schmookler, 1966; Freeman, 1991). On this basis and by virtue of the ability innovation has to completely overturn the competitive structure of a whole industry he had attributed it with the characteristic of “creative destruction”, leading to a lively debate on the relationship between innovation and the *entrepreneurial spirit* (Drucker, 1985 and 2002).

At the level of conceptual connections, other themes put alongside entrepreneurial endeavour in relation to innovation have included its *diffusion* to potential users (Rogers, 1962 e 2003; Christensen, 1997) and more recently that of *creativity* (Baccarani, 2004; Pilotti, 2010) and of *knowledge/learning* (Winter, 1987; Nonaka, 1994), its fundamental resources.

In this last regard particular emphasis has been placed on the osmosis of knowledge from and towards external contexts, giving way to so-called *open innovation* (Chesbrough, 2003) or “collective innovation” (Malerba, 2000), where innovation is conceived of as a *spatial* and *social system* (Lundvall, 1992; Van de Ven et al., 1999; Cooke *et al.*, 2004) where innovation is a “collective achievement” (Van de Ven et al., 1999, p. 149) resulting from continuing interaction between different agents and organizations.

As well as as a system, innovation has also been represented as a *process* through which it is generated, diffused and implemented (Freeman, 1991; Edwards *et al.*, 2005), a *continuous* or *iterative process* between invention and innovation where a single innovation is often the result of many interrelated innovations with different degree of innovativeness (Utterback and Abernathy, 1975; Kline and Rosenberg, 1986).



The concept of innovation has also been long examined according to the size of the company and in its relationship to R&D, giving rise to a breakdown in the forms of innovation ("*science based innovation*" and "*innovation without research*") (see for this point Giaretta, 2013).

From the point of view of a definition, the scientific debate seems to have mainly favoured taxonomic approaches, classifying innovation by contrasting categories according, for example to its contents and to its intensity (the degree of novelty introduced by the innovation).

Regarding the contents, Schumpeter distinguished between five different types: *new products*, *new methods of production*, *new sources of supply*, *exploitation of new markets* and *new ways to organize business*. In the literature, however, most of the focus has been on the distinction between *administrative* and *technological* and still more between *product* and *process* (Schmookler, 1966; Damanpour, 1991; Edquist et al., 2001). A somewhat similar distinction has been suggested by Henderson and Clark (1990) who distinguished between the components of a product (*modular innovation*) and the way these components are combined (*architectural innovation*).

As regards the intensity of the innovation, a distinction is made between *radical* and *incremental* (Ettlie et al., 1984; Dewar and Dutton, 1986; Koberg et al., 2003), between *continuous* and *discontinuous* (Bower and Christensen, 1985; Anderson and Tushman, 1990; Lyn et al., 1996), between *revolutionary* and *evolutionary* (Utterback, 1996), between *minor* and *major* (Downs and Mohr, 1976) and so on.

Other classifications have been made according to the effect exerted by the innovation on the competences of the company, giving rise to a distinction between *competence enhancing* and *competence destroying* (Anderson and Tushman, 1990), as well as according to the sources from which the innovation springs (*science push/demand pull*) (Schmookler, 1966; Nelson and Winter, 1977) or also according to the final customer's perception of the value added by the innovation (*sustaining/disruptive*) (Christensen, 1997).

These and other classifications abound in the literature and are often, at least partially, overlapping. The differences they are based on are not in reality clear, a factor that has led to a certain amount of terminological confusion that has also affected the empirical investigations that have been carried out with these as their starting point (Garcia and Calantone, 2002).

#### *The socio-cultural dimension of Innovation concept*

To better understand the meaning of innovation some scholars have recently therefore proposed going beyond the traditional classifications with the emphasis on the various different individuals or social groups involved in the innovative process. (Danneels and Kleinschmidt, 2001; Kahn et al., 2003)

Emphasising the social and cultural aspect of innovation, an approach was taken by Weick (1995) that involved his treatment of "sense making" for interpreting data: "what the situation means is defined by who I become while dealing with it or what and who I represent" (Weick, 1995).

For some time the social dimension of innovation has been specifically brought to the attention of the literature, in the sense that “it is the perception of a social unit that decides its newness” (Zaltman et al. 1973). In this vein can for example be seen the notion that the radicalness is a perception of organizational members according to the amount of experience they have with the innovation they are developing (Green *et al.*, 1995).

Among articles along these lines can be included that of Woolgar (1998) according to whom “some problems in our understanding of innovation can be addressed by thinking of innovation as a social process” (p. 441) and “whether or not (an) idea counts as new, necessarily depends on the social network involved” (p. 442). This essentially sees technology as “congealed social relations” (p. 444) identified in “sets of identities, expectations, beliefs, value and language”, innovation is thus about changes in a network of social relations.

Among the admittedly small number of studies rooted in the social construction of innovation perspective the empirical investigations of Massa and Testa (2008) should be recalled. These aimed at investigating the different perspectives on innovation (starting from its definition) held by three main innovation stakeholders, identified as entrepreneurs, academics and policy makers. A quote from the investigation, “delving into details of the different perspectives on innovation is not a mere academic game” (Massa and Testa, 2008, p. 394), speaks for itself while the fact it is the perspectives that deeply influences behaviour, in terms for example of innovation policy making and innovation practices inside companies and universities.

Another research adopting a social constructionist approach is that of Harrisson and Laberge (2002) who explored the process of diffusion of a socio-technical innovation among a firm’s workers. The article revealed “how innovation is constituted and the form it takes by following the chain of arguments and responses of the actors involved”. It was hypothesized that “innovation does not impose itself but is constructed through the interactions between members of an organization and the intermediaries that they introduce in order to legitimize the decision made” (p. 498). In this sense it can be included also Papadopoulos (2012), whose study focuses on the dynamics of actor associations as they are manifested in the efficiency innovations in specimen turnaround times in a pathology unit of an English NHS hospital.

Other studies seem to confirm that the interpretations of the meanings of the term “innovation” are influenced by one’s perspective. Linton (2009), for example, examined the language of innovation in the academic literature and offered a framework to capture the complexity of the meaning of innovation that recognizes the important role of differences in perspective, often a source of confusion. Perren and Sapsed (2013), in turn, analysed the use of the term “innovation” in policy discourse over an extended

period of modern British history in order to understand its changing meanings, where we can find evidence of a broadening of its definition.

That innovation may be variously perceived is also indicated by those contributions to the literature that have gathered the most diverse definitions of innovation in order to pinpoint the factors that have been focussed upon most. Those indicated include, in order of frequency, the following words (Denicolai, 2010): novelty, process, success, different typologies, entrepreneurial spirit, implementation, market, change, combination, knowledge, discipline, discontinuity, ideas, means, improvement, organisation and pre-existing routines.

To sum up, the multidisciplinary literature on the subject of innovation has addressed many aspects of innovation (Fagerberg, 2004; Garcia and Calantone, 2002; Fagerberg and Verspagen, 2009; Martin, 2012). At the semantic level however, the contributions seem to have tended towards the terminological distinctions, conceptual connections, the classifications and way the concept of innovation is actually represented (for example, as a process or as a system). We have found that rather less attention has been paid to the very meaning of it, starting from an analysis of its etimological significance (Varanini, 2006) and then on to a consideration of the evocative power of the term that reveals the archipelago of concepts around that form the roots of this formidable logical and practical construct.

### **Methodology**

We set out with this study to better understand which concepts are linked to the term “Innovation” in the minds of a sample of experts. The sample was chosen at random from Italian academics and managers presenting a paper at the annual Conference of the journal “Sinergie” on the theme: “Innovation for the competitiveness of the enterprise” held in Ancona (Italy) in October of 2013.

The papers submitted to the Conference numbered 52. This study took 50% of these on a random basis, asking the authors to indicate the 5 words that in their way of thinking best typified the concept of innovation. Words used in this way were taken as being central to the way that they felt about the process of innovation. To avoid rationalisation of their thoughts the interviewees were asked to indicate the words independently of the theme of their particular papers but rather on an instinctive basis, to thus reveal their immediate perceptions and not acquired knowledge and ideas.

There were two underlying hypotheses:

- a) the enunciations could concentrate responses around certain generally shared associations, leaving only limited space for other less frequently expressed associations that could however amount to the “prime words” in relation to innovation;
- b) the literature on the subject has focussed on certain threads over time that have only in part succeeded in grasping the variegated nature of the concept of innovation.

The response rate was decidedly high because 23 authors from 17 Italian universities working in the field of management studies formulated their replies in the time requested, being a percentage of around 88% of the number randomly selected.

### **From a List of Words to a Conceptual Construct of Innovation**

The words gathered in the preliminary process gave rise to a list as the first form of organisation of the data (Eco, 2009). There were 69 words, 19 of which expressed at least twice and 50 just once, for a total occurrence number of 112 (Table 1).

1) Creativity (11)	15) Intelligence (2)	29) Consciousness
2) Change (9)	16) Invention (2)	30) Context
3) Future (4)	17) Knowledge (2)	31) Courage
4) Ideas (4)	18) Openness (2)	32) Create
5) Development (3)	19) Passion (2)	33) Customer satisfaction
6) Evolution (3)	20) Air	34) Divergence
7) Progress (3)	21) Anticipation	35) Dream
8) Research (3)	22) Attractiveness	36) Experimentation
9) Competition (2)	23) Audacity	37) Exploration
10) Competitiveness (2)	24) Balance	38) Fear
11) Culture (2)	25) Breaking-away	39) Feeling
12) Curiosity (2)	26) Challenge	40) Heart
13) Freedom (2)	27) Commitment	41) Identity
14) Growth (2)	28) Communication	42) Imagination
43) Improvement	68) Wonder	
44) Inevitability	69) Word	
45) Integration		
46) Labyrinth		
47) Listening		
48) Method		
49) Milestone		
50) Necessity		
51) Nostalgia		
51) Opportunity		
53) Optimisation		
54) Perspective		
55) Rigor		
56) Risk		
57) Science		
58) Sharing		
59) Skill		
60) Success		
61) Surprise		
62) Talent		
63) Technology		
64) Trial		
65) Utility		
66) Value		
67) Vision		

Table 1 *Words related to innovation by frequency (1)*

- (1) Our processing of the direct investigation. The words are shown in alphabetic order and in decreasing order of frequency with which they were cited. Where there are no brackets the word was cited only once. The sum of the values in brackets and single cases gives a total of 112 quotes. The words shown are 112 and not 115 as expressed by the sample because in 3 cases the concepts were so broad as not suitable for summary with one word or unequivocally.

The first two words mentioned, "Creativity" and "Change", provide together around 18% of all occurrences. Summing "Future" and "Ideas" with the already cited, the first 4 words express 25% of the total of the returned words. Grouping the first 8 the percentage rises to around 36%. The sum of the words cited at least twice gives a percentage of around 55%, while the terms mentioned once alone express 45% of the cases that emerged.

Given that the interviewees had access to a very wide vocabulary since the choice was left entirely to them, the concentration as high as 18% around just two concepts, that is "Creativity" and "Change" cannot be a matter of chance and in a way confirms the hypothesis of a broad sharing of certain concepts.

It is also however the case that the words expressed just once, 45% of the cases, go well beyond what was hypothesised when the study was started, where the space expected for these was more restricted than proved in the actual findings. In this sense, since the perceptions gathered were from experts in the field, it can be inferred that a fertile area for study and analysis opens up that have not usually been considered in the area of innovation processes.

No longer looking at the cited words, whatever the number of references, but rather at those which are "missing", that is those which logic might have led to an expectation of their use insofar as central to the literature on the subject, it is interesting to note that none of the twenty-three interviewed mentioned "Enterprise", "Entrepreneur" or "Entrepreneurial spirit". One explanation could be that all of them had taken for granted the link between Innovation and these terms, but it is very curious that of the 115 possibilities made available (23x5) no one called on the agent par excellence of the processes of innovation.

Another curiosity is the fact that the term "Technology" occurs *only once*. This could be indicative of the fact that the scope of innovation, contrary to what could be imagined, goes well beyond its merely technological aspect.

Essentially it can be said that, leaving aside a certain convergence for the two absolutely central terms in relation to innovative processes, i.e. “Creativity” and “Change”, there is in the totality of words mentioned a large and interesting space open to analysis that has to date been little explored.

The results of the occurrences recorded are well highlighted in the innovation cloud reported in Table 2.



Table 2 *The Innovation cloud*

Going beyond illustrating the total results of the survey, an examination of the files returned by each participant (left out here for reasons of space) shows us which of the words have been placed first in the individual list, i.e. which words came most immediately top of mind of the interviewees by virtue of the force exerted by them in relation to the subject in hand. It is interesting in this regard to notice that only two of the first four, that is “Creativity” and “Ideas”, present at position one in the individual lists, the former in 4 cases and the latter twice. If we consider the closeness that exists between these two concepts, what emerges is reinforcement of the centrality of “Creativity” in the perception of the key aspects of innovation. Such a result was quite expected in view of the broadness with which the subject of the relations between creativity and innovation has been treated in the literature. This strong source of attraction, however, makes it significant that “Creativity” is only cited in *first* place by 4 researchers out of the 11 that had noted it down, with as many as 12 of the interviewees failing to include it in their lists. It would seem that the significant scientific coverage of the subject does not preclude a substantial group of academics from holding that the discussions on creativity do not represent the key aspect of innovation.

It should not be underestimated in this regard that in at least one case the first place is occupied by the term “Change” which strengthens the second position of this concept in the field of innovative processes and this despite the attention found in the literature to the study of connections between “Innovation” and “Change”.

If we move on from the first word cited by the interviewed academics to that in last place of the five words provided by each of the participants in the study, it can be seen that unlike what happened with the first word there are no cases of multiple references. This could be regarded as somewhat predictable given that the further we stray from the words deemed most “important” the more likely it is that the paths of the list diverge. From the third word onwards the process of elicitation becomes all the more difficult.

Considering the individual groups of words cited by each of the authors, it can be observed how in two cases completely different combinations are revealed from the others, with no word in common for the remaining 21 researchers.

This comment is introduced in order to emphasise how in a large part of the cases (21) there is some shared point, while only in two cases there remains complete detachment between the perceptions.

With the words at our disposal it was then possible to proceed with a final processing of the results, not this time of a quantitative nature, that is to say regarding the words as more or less cited or not cited at all, but qualitative processing. The numerous words referred by the sample of experts were thus framed within a scheme consisting of five conceptual categories.

The scheme in question aims to arrange the innovation phenomenon according to its essential components. The framework does not derive from the list of words but is laid over them. The conceptual categories that make up the scheme are the following “What it consists of”, “Intrinsic requisites”, “Conditions for innovation”, “Effects” and “Context”.

“What it consists of” gathers together those words that in some way go towards a definition of Innovation; “Intrinsic requisites” comprises those elements deemed indispensable for Innovation to be able to take place; “Conditions for innovation” regards those factors within the enterprise itself that make Innovation possible; the category “Effects” takes aboard those words that relate to the consequences of innovative phenomena and finally, “Context”, contains the heterogeneous elements that make up the backdrop to the innovative processes.

Assigning each word to a category in the scheme is of its nature a subjective process even if the a priori and external definition of the categories leads only to an evaluation of the congruity between the individual word and the categories and does not seek semantic affinity between each word and all the others in the category. The result of this process can be seen in Table 3.

<i>Category 1</i> WHAT IT CONSISTS OF	<i>Category 2</i> INTRINSIC REQUISITES	<i>Category 3</i> CONDITIONS FOR INNOVATION	<i>Category 4</i> EFFECTS	<i>Category 5</i> CONTEXT
Change (9)  Anticipation  Future (4)  Exploration Trial Experimentation  Ideas (4) Invention (2)  Optimisation Improvement	Intelligence  Smartness  Customer satisfaction  Usefulness  Value	Create  Creativity (11)  Openness (2)  Curiosity (2)  Breaking-away  Divergence  Imagination  Freedom (2)  Air  Wonder  Attractiveness  Surprise  Dream  Perspective  Vision  Ability  Talent  Knowledge (2)  Science  Research (3)  Method  Rigor  Technology  Heart  Feeling  Passion (2)  Commitment  Nostalgia  Communication  Sharing  Word  Integration	Competitiveness (2)  Evolution (3)  Progress (3)  Development (3)  Growth (2)	Competition (2)  Opportunity  Necessity  Inevitability  Labyrinth  Challenge  Risk  Fear  Audacity  Courage  Milestone  Success  Listening  Context  Awareness  Equilibrium  Identity  Culture (2)

Table 3 *Conceptual scheme for Innovation*



The above 5 categories display a non-linear word distribution (frequencies), which can be tested through a statistic test (omnibus test) (Table 4).

	Frequency expected	Frequency observed	Observed value of the statistic test Chi-square	Critical value chi_0,05	Degree of freedom	Gap
Category 1	22,4	25	0,302	6,239	1	non significant
Category 2	22,4	6	12,007	6,239	1	significant
Category 3	22,4	48	29,257	6,239	1	significant
Category 4	22,4	13	3,945	6,239	1	non significant
Category 5	22,4	20	0,257	6,239	1	non significant
Total (omnibus)	112	112	45,768	9,488	4	significant

Table 4 *Omnibus and post-hoc test*

Since the observed value of the statistic test Chi-square (45,768) is greater than the critical one (9,488), we can maintain a statistically-significant non-linearity of frequencies. Through a “post-hoc test”, then, we can go into further detail considering the categories where a gap from uniformity is significant and hence non random.

From this standpoint, relevant gaps can be detected for Category 2 (12,007>6,239) and 3 (29,257>6,239). This means that word distribution in such Categories is not coincidental; in particular, Category 2 displays a number of words smaller than the expected one, while on the contrary Category 3 shows a word frequency decidedly higher.

So, while “Intrinsic requisites” (Category 2) are less interesting, the greatest number of words is gathered together under “Conditions for innovation” (Category 3), which is testament to the strong attraction exerted by the processes capable of leading to innovation when considering it. What most intensely stimulates thought are therefore those factors that generate Innovation, within which a number of different “techniques” are distinguished (Knowledge, Science, Research, Method and Rigor) and then the “softer-edged” factors of an emotional kind (Wonder, Surprise, Dream, Heart, Feeling, Passion and Nostalgia).

The phenomenon of innovation thus appears in an unusual light, that of the particularity of the variegated associations that spontaneously enter the thought of the academics approached.

This is to say that if particular attention is paid to the less cited terms, if free rein is given to thought to allow it to flow with curiosity along paths led by the imagination, and it is then subject to rigorous appraisal on the basis of available knowledge and technologies, the conditions are created for the spread of creativity and the activation of change.

## CONCLUSION

The somewhat strange path taken through the wordlist produced by a group of experts in relation to the concept of Innovation has led to the possibility of coming to some interesting conclusions both in terms of academic theory and in terms of the implications for management.

As regards the first of these, the non-confirmation of one of the hypotheses reveals how the concept of Innovation is much more uneven in nature than it seems to be at first sight. It is fascinating to consider that only one person referred to the term “Technology”, as is the fact that no one used the word “Enterprise” as well as the further fact that no less than 50 words were cited only once.

The high level of fragmentation of the perceived concept of innovation – recorded, it must be remembered, within a group of persons that were in relation to this both competent and quite homogenous – shows how the roads to a full understanding of the concept are still long and winding.

Certainly the request to associate not one, two or three words with “Innovation” but five, does go some way to explain this result. The greater the number of words asked for will increase the probability that persons, as is likely in this case, will diverge from what could be regarded as the most “normal” and immediate associations.

This point notwithstanding, the study not only underlines the plurality of meanings and perceptions that exists in relation to the concept of Innovation but also suggests, through the analysis of the words cited only once, innovative points of view from which to observe the phenomenon of Innovation itself.

Similarly, in relation to the managerial implications, the path followed by the study of the words deemed by the experts most central to innovative phenomena, and the discovery of the limited convergence of meanings, indeed the multiplicity of interpretations, offers those who manage the companies a large number of ideas and stimuli for their approach to the process of innovation.

The variety of the words present in the list, and in particular those “unique words” apparently most distant from the concepts traditionally associated with Innovation, may in fact suggest innovative approaches that may indeed be more profitably employed.

There is no doubt that the study has its limitations, due also to the stage it is currently at. All things considered the sample is restricted in number and not statistically entirely representative even though the selection was wholly random. This still initial phase of the study has meant we have not yet been able to draw up a full conceptual map on the basis of the word list; the identified words have been interpreted without recourse to content analysis software.

In future the research could be extended to more representative samples of experts as well also to diverse groupings of people, such as to entrepreneurs or to consumers, not to mention to young management students. The work itself can be broadened in terms both of the conceptual maps as

management research tool and in terms of the interpretation of the specific maps generated in relation to the subject of Innovation.

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## PPP LAW AND BUSINESS DEONTOLOGY IN THE UK AND FRANCE

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### ABSTRACT

Public-Private Partnership (PPP) is the most recent variation of concession and a significant tool for provision of public services and assets, through a long-term contract with a private entity.

PPP is now considered as a key tool within the School of Thought of New Public Management (NPM). In the case of the UK, Private Finance Initiative (PFI), introduced in 1992, became the innovative government's tool, while France has recently introduced a legal framework on PPP.

This paper aims to present the origins of the UK and French PPP model, in accordance to NPM and in correlation to the cultural sponsorship contracting. Governments' decisions, from both countries, are critically reviewed and compared, referring to their legal framework, under which public administration is implemented. An approach coming from the Business Administration Deontology is taken to the PPP methodology, mainly in the ambivalent case of imprisonment scopes, let alone the fact that the UK has not only institutionalized contracting out for the management of jails for 22 years but also it has abolished the imprisonment for debts for 145 years!

Not only in the UK, where *"Engineer is an Engineer"*, but in general new rules should be adopted, to promote registered architects to the rank of certified *"Architects Sponsors"* for cultural sponsorship of high quality. This pioneer development, summarized in the emblematic motto *"Architect is a Sponsor"* could be beneficial for technical scopes, such as PPP projects.

**Keywords:** *Architects, Business Administration Deontology, Concession, Contracted-out prisons, Cultural sponsorship, "Engineer is an Engineer", Private Finance Initiative (PFI), Public - Private Partnership (PPP), New Public Management (NPM), Thatcherism, School Buildings Architecture*

## **INTRODUCTION: PPP, A THATCHERISM INNOVATION WITH DEONTOLOGICAL QUESTIONS**

Public-Private Partnership (PPP) is not a term for a single, unique model of partnership between public and private sector, but instead represents a group of models, which all are characterised by cooperation and risk sharing between the public and private sector, while this cooperation is based on more flexible methods of financing and operating facilities and/or services. The term can include simple outsourcing partnerships – where services are provided on short or medium-term contracts – or longer-term concessions and private finance partnerships such as the UK model of Private Finance Initiative (PFI) (HM Treasury, 2012).

In its current and known content, PPP comes from the homeland of Industrial Revolution, namely the UK. The Government of Prime Minister John Major introduced Private Finance Initiative (PFI) in November 1992 as a way to cope with the difficult economic situation its country had been found in. Realizing that the State had lost the ability to solve economic problems by its own, Major decided “to put into the game” private partners, ruled by commercial concepts and not necessarily by the public values that the state is supposed to ensure. The idea was not new; his predecessor, the “Iron Lady”, Margaret Hilda Thatcher, a few years ago, had started to shrink the State. In that way, the country was expected to extricate itself from the political and economic quagmire. The term “Thatcherism” describes the leadership style of Thatcher herself and also the influence of her policies under subsequent Conservative governments.

It is to point out that PPP constitutes a product of the School of Thought of New Public Management (NPM), rather than an institutional framework of a State, like UK and France.

## **NPM AND GOVERNMENTAL POLICY IN THE UK**

During 1970s and early 1980s, the concept of New Public Management (NPM) appeared, as a result of public choice theory and managerialism (Aucoin, 1990). NPM is a group of special management approaches and techniques, which are used in public sector management, but their origins can be located in the private sector (Mongkol, 2011). The first phase of public management transformation began during '80s and stated the state's interference in the economy by promoting the concept of free market, deregulating labour markets and fracturing trade unions. The second phase began in early '90s with increased emphasis on competition, commercialization and quasi-markets in public services. The third phase of neoliberal transformation began in early 2000s with an emphasis on creating markets in public services.

NPM was first used in the UK, under Thatcher, and in the U.S. municipal governments (e.g., Sunnyvale, California) that had suffered most heavily from economic recession and tax revolts. Their

successes put NPM administrative reforms on the agendas of most OECD countries and other nations as well (OECD, 1995). So, Thatcher became the “mother” of NPM, following the Chicago School, one of the most important ideological supporters of neo-conservative economics and capitalism. NPM basic thoughts are that: (a) markets manage resources more efficiently than governments, (b) monopolies are born by government’s attempt to control economy, (c) governments should avoid to manage aggregate demand and, (d) they should focus on maintaining a steady and low rate of growth of money supply.

It is to underline that Thatcher is not merely the “mother” of NPM, exemplified by the PPP contract model, but also the pioneer of the PPP itself, at least in the form of the so-called “institutional PPP”. This term, which is typical for the British case but not in official use in other legal orders, refers to the companies of mixed economy, in contrast to “contractual PPP”, where the private entity is responsible for the construction, operation and maintenance of the public asset, charging users for the service, and the partnership between the public and private sector is based only on contractual links. According to the European Union, it is about public enterprises that have been partially privatized while this phenomenon consists also of enterprises belonging from scratch to both public and private carriers.

It is not clear whether the new neo-liberal approach was the result of Thatcherism or of globalization. Labour modernizers claim that these partnerships are not privatization because the public services themselves remain available on the same universal and free terms (Driver & Martell, 2002, cited by Oakley, 2011/2012). In order to make the difference from the policy of the Conservative government, new Labour attempted to present it as a 'third way' (Giddens, 2013), part of the third phase of public management transformation. From this third way perspective, the PPP “offered an alternative to the (new right) private provision of public services and the (old left) public sector monopoly” (Driver & Martell, 2002 cited by Oakley, 2011/2012). However, it could be claimed that the PPPs were models created by previous Conservative administrations, from which the third way was to be distinguished.

## **THE ORIGINS OF PFI IN THE UK**

Partnerships between public and private sector are not new in the UK. More than half a century ago, during 1950s and 60s, UK’s local authorities were of the first to agree with construction companies in building of high rise flats and removing of the slums, while the Conservative government was promising special housing subsidies for high rise prefabricated housing. After the oil crisis in 1973 and the intervention of International Monetary Fund in the Great Britain three years later, investments in infrastructure suffered an extensive decline. Consequently, further cuts in public sector capital expenditure programmes were imposed by both Conservative and Labour governments.



After entering the office in 1979, the Thatcher government, based on the economic deterioration, which had been created during the governance of the Labour party, rejected the Labour's Keynesian approach and started to follow a more monetarist approach (Hudson & Lowe, 2009). During the 1980s and 1990s, Thatcher's Conservative government tried thoroughly to reduce public expenditures using institutional PPPs, privatization of public assets and contracting-out of public functions. As a result, a variety of service providers, including autonomous public bodies, independent regulators, executive agencies, charities and private firms, started to take part in the design and delivery of public services, pushing aside the constitutional model of ministerial departments (Flinders, 2005). The state was no longer responsible for the delivery of every service to its citizens.

By 1990, the majority of the basic transport and utility infrastructure in the UK was either privatized or planned for privatization. Since this model seemed to be successful, government decided to use it in other sectors, such as health, education, prisons and local governance. The distinction between public and private sector became increasingly opaque (Flinders, 2005).

The introduction of PFI in 1992 was made so the government can increase efficiency of financing in public infrastructures without affecting short-time public expenditures. Government's intention was to create off-balance sheet financing for public infrastructures and services, despite the fact that, in many cases, the payments to the contractor (private entity) are not considered off-balance sheet, since they last over the lifetime of the contract. Private financing for major public infrastructure projects had provided governments with a new tool, used to promote infrastructure deals (Hodge & Greve, 2007).

## **THE QUESTION OF BUSINESS DEONTOLOGY MAINLY FOR CONTRACTED-OUT PRISONS**

When new Labour took governance in 1997, they continued a "Thatcherite" approach to public management and they agreed to continue the PFI programme that had been introduced by the Conservative party, despite the fact that they had initially criticized it for being another way of privatization. Labour's new macroeconomics point of view seems to follow the assumptions that "there is simply no alternative" to the new neo-liberal concept (Taylor, Gerald (ed.), 1999). However, this development raises severe criticism in deontological terms, as politicians adopt the opposite points of view and private companies are supposed to enact the traditional role of state power in an extremely sensitive domain, like the penitential one. How commercial private organizations can cope with imprisonment policy of the state in compliance with public interest, including the human rights of detainees?

Before the 1997 general election, Labour party stated that all contracted-out prisons would be returned to the state. More specifically, Jack Straw, who later became home secretary, stated that, "*I should like*

*to stress my fundamental objection to prisons run by the private sector*". Despite that declaration, a few months after becoming home secretary and having monitored the use of prisons under private management in the USA, he announced that contracts had been signed for two more privately run prisons, and a contract for an existing privately managed prison had been extended. Then he noted *"in a better world the incarceration of prisoners should be handled by the state"*, but he explained himself outlining the structural and financial limits placed upon him by HM Treasury (Flinders, 2005). The privatization of prison services was used by governments trying to solve the problems of overcrowding in the UK's prisons and to spread the costs of internment of offenders.

It is to pay special attention to the fact that in 1850, the majority of detainees in the jails of London were debtors being unable to accomplish their obligations. Imprisonment for debts was abolished in 1869, by recognizing that the security of deals was more important than the reformation of debtors. Since then, the weak debtor, either a private individual or an entrepreneur, is not submitted to imprisonment but to protection! In the USA, debtor is protected against his creditors and he is enabled to make a new start. Why this status has not yet been extended to the external debts of the states, against their creditors, for instance in the case of the so-called "bankruptcy" of Argentina in 2014? (Vergopoulos, 2014). In any way, this story is indicative of an important liberalization and flexibility of the UK legal order, to which is relevant the PFI development. Furthermore, the existence of contracted-out prisons reinforces the doctrine of Architecture, according to which there is no discipline, within this science, for public buildings architecture. Business community of architects is supposed to focus on the programmed used, fixed for the buildings, not on their legal status.

Nevertheless, many other countries, particularly in mainland Europe, as it is the case of France and Greece, are rather apprehensive for ethical reasons, incorporated to their constitutional rules and principles. The recent datum on the matter comes from the jurisprudence of the Supreme Court of Israel, which prevented the government from activating a PPP program for jails as the program was judged as unconstitutional.

So, the question of public jails is clearly ambivalent and, as a result, inappropriate for absolute approaches, in both deontological and architectural terms...

## **APPLICATIONS OF UK PFI MODEL IN THE DOMAIN OF EDUCATION AND DEONTOLOGICAL IMPLICATIONS**

It is obvious that PFI, since its introduction, has been used in many sectors, while, it has been discussed and argued even more. It has been considered in various concepts, namely as an administrative, managerial, financial or technical tool. These concepts can be recognized in published statements and reports of the UK government, as well (HM Treasury publications in the last 15 years).

The government uses three broad categories to place PPPs: ownership, delivery of services or infrastructure to the public sector and the selling of public sector services to others (such as through the exploitation of patents) (McQuaid & Scherrer, 2008).

It could be said that, through PPP/PFI, a legal and administrative framework was developed in order to create opportunities for new investments in delivering of public services. Considering that PFI is basically the next step of the Conservative's privatization and economic policies in 1980s, this framework not only was based on innovative political and governance forms, but it also contributed to the creation of the appropriate conditions for investments in innovative spheres.

Since its introduction, PFI has been mainly used for the delivery of non-reciprocal public services, in sectors of health, education, justice and environment, but also for construction of software systems – the UK's national insurance system is being redesigned under a PFI contract. As the numbers demonstrate, by 31 March 2013, 168 projects, out of the total 725, had been signed by the Department of Education and 66 of them were under the program "Building Schools for the Future (BSF)". At the same time, 121 projects were signed by the Department of Health, 44 by the Department of Defense, 23 by the Department of Justice and 30 by the Department of Environment, Food and Rural Affairs. Even if we look at other sectors, like transport that is mainly considered as reciprocal, we will see that most of the projects that were signed by the Department of Transport are non-reciprocal and they are related to street lighting (32 projects) and road maintenance (24 projects).

In cases of health and education domains, the contracts, usually, include the construction of hospital and school buildings, along with the delivery of 'building services' such as cleaning, maintenance, catering etc., while the medical and nursing services remain within the public sector. PFI projects are generally procured by local authorities, but the Priority Schools Building Programme (PSBP) will be procured by a central unit in the Department for Education (formerly Department for Education and Skills), the Education Funding Agency (EFA). According to HM Treasury (HM Treasury, 2012), EFA is working with the schools in the programme during the pre-procurement phase to develop the project's design brief, but will allow schools to concentrate on the business of running themselves. Under this program, 261 of England's schools being in the worst condition will be rebuilt and refurbished and new Information Technology will be provided for all 3,500 secondary schools in England.

Under the previous programme, namely the mentioned "Building Schools for the Future (BSF)", that stopped, a special book of 120 pages was published by the DfES that introduced design ideas of eleven design teams. Mr David Miliband, Minister of State for School Standards, in his foreword for the book, characterised this collection of ideas as "a compendium of designs", that their purpose is not be

templates, but to “act as springboards for developing imaginative and sustainable school buildings, tailored to local needs and aspirations” (Department for Education and Skills, 2003).

The book presented general, innovative design ideas for each single place and part of the primary and secondary schools and it acted as a trigger for wonderful designs, but also very expensive. HM Treasury claimed, in its report for the presentation of PF2, that *‘the Government is aware that one of the major drivers of increasing private sector bid costs is the design process. Experience from the BSF programme particularly demonstrated that bidders were encouraged to carry out excessive design work in competition in order to win a bid. This contributed to unnecessarily high bid costs due to the volume of wasted design work’* (HM Treasury, 2012). In addition to this, National Audit Office (NAO) characterised the BSF program as *‘a very optimistic, expensive and wasteful programme that did not prioritise the most dilapidated schools. Under BSF it took 3 years for building work to begin. Under the PSBP we have cut this to 1 year and anticipated project costs are up to 40% lower’*.

Under the current PSBP program, special documents were published, as well, containing baseline designs and strategies ideas for schools. However, in this case they focused in quite different sectors. Expensive architectural designs were put aside and attention was paid on structural design strategy, natural ventilation, fire safety, environmental services, daylight and acoustic strategy. It can be said that in cases of funding constraints, the first thing to be abandoned is the less necessary, in terms of safety and operation (‘safety first’). Requirements concerning building beauty are not taken into consideration when cuts in budgets are a necessity. It is not by chance that architects are considered (in the UK, not also in Greece) as artists and not engineers, according to the doctrine “*Engineer is an Engineer*”.

Similar documents have been published, by the Greek Organization of School Buildings, for the construction of schools, also through PPP. These documents are specialized texts, which mainly contain technical details. They are not considered as springboards like those in the UK, but they present directives, guidelines and national standards on the construction of buildings, which have to be followed. This does not mean that Greek governments are less interested in architectural designs and achievements, but that their first concern is to protect the citizens against natural phenomena, like earthquakes. Of course, these thoughts and priorities do not implicate exclusion of building designs that are based on artistic values. It is a matter of deontology to respect for the architecture contribution to constructions. Besides, history has demonstrated that buildings endowed with a high artistic value and still standing are the ones for which we speak for. In conclusion, combination is the key.

## **NPM AND THE FRENCH PPP MODEL**

The state of France has a long history in public contracts, concession arrangements and leases, used for a variety of public services. The generic term that is used for this kind of contracts is “delegated management” (*gestion déléguée*), and it represents the delivery of public service contracts, where the payment of the reward of the delegate is based on the use of the service and where management of the service is entrusted to a legal entity that can be a private company, a semi-public company, an association, a local authority or a public corporation not controlled by the delegating local authority. The French PPP model can be considered in two main categories (EPEC, 2012), in concession arrangements (*délégations de service public*), and in partnership contracts (*contrat de partenariat*).

In 2003, during Jacques René Chirac’s presidency, the Parliament created a general law (Law 2003-591 of 2 July 2003 - the “Enabling Law”), by which the Government created a general legal framework for future PPPs. On June 2004, the Government Order No. 2004-559 on partnership contracts was published (amended and complemented in 2008 and 2009), creating a modern PPP model, based on the UK PFI model, where the structure of the contract is more flexible in many aspects. The basic purpose of this new model is to become a solution between the traditional concession regime (by allowing payments from the State) and the public contract regime (by permitting deferred payment and global tenders of works and services) (Andriani, et al., 2006). On the other hand, a significant legal risk was created, due to the fact that the Order requires from the public authority to conduct a formal evaluation (similar to the “public-sector comparator” under the UK PFI).

The PPP *Ordonnance* established a right *in rem* in favor of the private entity. This right creates some privileges that are typically connected with legal ownership, such as the right to dispose of, and create security interests over public assets. However, this right is subject to significant limitations (Porcher-Marquis, et al., 2004/2005).

In 2009, during the financial crisis, the Government of France adopted a large stimulus package (*Plan de relance*) in order to assist state’s economy and to minimize crisis effects. The Plan was created to support investments in public infrastructure and comprise a State guarantee for public private partnerships (the “Project guarantee”). The guarantee is awarded by the French Ministry of Economy, under certain conditions, following Article 6 of the Law Amending the French Finance Law (*Loi de finances rectificative*) of 4 February 2009.

Almost each ministry in France that uses the PPP model for delivery of public services, had created a taskforce of experts, which purpose is to aim the relevant public authority (both in central and local governance) in every aspect of the PPP contract. More specific, taskforce’s purpose is to provide its legal and technical advice on the preparation and negotiation of “partnership contracts”, evaluating, as well, the finances of the transaction.

The Ministry of economy and finance is supported by a well-known taskforce, named MAPPP' ('Mission d'appui à la réalisation des contrats de partenariat publics privés'). MAPPP started to operate in 2005 and it has already issued a practical guide ('Les Contrats de Partenariat - principes et méthodes'), but it has not created a standardised documentation as the UK Treasury has done. In 2011, MAPPP became a 'service with national competence' and was placed at the Treasury department of the Ministry of Economy, Finance and Industry. It is now responsible for gathering the data of partnership contracts; as far as for the concession arrangements are concerned, there is no central entity responsible for their data collection.

### **Concessions**

There are three main variants of concession (EPEC, 2012):

- “Concession”, in the strict sense, in which the private sector entity undertakes the full responsibility and risk for operating and financing the public service/ infrastructure.
- “Affermage”, where the private company is responsible for the operation and maintenance of the public service/ infrastructure, earning money from charging the users, but it is not responsible for significant capital investments. The public sector, which is the owner of the infrastructure, is responsible for further investments in the system.
- “Gérance”, in which the public sector pays to the private company a standard fee to manage the system, without undertaking any responsibility or risk for future investments.

While in the UK the term “*concession*” has a broader and generic concept, in France it has to follow the strict frameworks of the administrative law, concerning the concepts of “*service public*” and “*délégation de service public (DSP)*”, as well as the jurisdiction of the French administrative courts, regardless of any provision to the contrary in the agreement (Porcher-Marquis, et al., 2004/2005). This implies that a public authority has a unilateral right to terminate an administrative agreement or amend its provisions, provided it is required. Concession, is based on the concept that the concessionaire is not to be paid off by the conceding public entity, but the revenues will be mainly obtained by the users of the conceded service. So, reciprocal projects (e.g. toll roads) can be implemented through concessions. Until 2004, the only PPP alternative to the concession was the public procurement under the public procurement code. Public procurement, however, was considered ill-fitted concerning to the private financing of public services due to the prohibition on deferred payment mechanics, related to the METP scandal (Winch, 2010), as well as the dysfunctional obligation for separate contractors for construction works and operation/maintenance services (“Code des Marchés Publics” for deferred payment and separate tenders, and the law of 12 July 1985 on “*maîtrise d'ouvrage public*” which provides for distinct roles between the general contractor and sub-contractor). As a result from these

restrictions, the French State was lagging from using some of the benefits of New Public Management, like transferring a large portion of risks to the private sector.

### *Partnerships contracts*

Within a partnership contract, a public entity can authorize a private partner to pursue a variety of schemes, including design (fully or partly), build, maintain, operate and finance public assets and public services over a long time period, giving a long-term payment to the private partner, as well as renovation and outsourcing transactions. Using this kind of contracts, the State can be benefitted from (EPEC, 2012):

- broader use in a variety of scopes; *contrat de partenariat* can be used to any project
- an integrated approach to the project; (i) construction or refurbishment of assets, (ii) maintenance, exploitation or operation of assets and (iii) financing total or part of the asset
- flexible financing management of the project
- a long-term agreement on payment
- transfer of the risk to the private partner, including construction and service performance
- better use of time frames in cases of urgent projects
- value for money ("*efficience économique*" criteria).

## **APPLICATIONS OF FRENCH PPP MODEL IN THE DOMAINS OF JUSTICE AND NATIONAL DEFENCE**

Any public entity (e.g. the State, local authorities, the public establishments or public bodies of private law) may make use of the type of partnership contract. France PPP model has been applied to many public service domains, like the healthcare system, transports, telecommunications, and sports stadiums. Besides these industrial and commercial services, which have traditionally been delivered using private involvement, social services and activities, as well as culture-based functions (typically belonged to the state's authority) are now operated through the PPP model. Public authorities prefer to use private partnerships for the delivery of water and energy, for rubbish collection or household waste disposal, as well as for museums operation. In cases of cultural context, the recourse of the French Administration to PPP contracts remains restricted (Maniatis, 2011).

Private partnerships are used even in the sensitive domains of national defence and prisons. Even more spectacular is the initiative of the Ministry of Defence, taking its lead from its British counterpart's use of PFI, to outsource operations like helicopter pilot training or logistical services for external military operations in a highly integrated framework of PPPs (Sadran, 2004). The responsibility for both prisons and military procurement projects belongs to the jurisdiction of central government (Ministry of Justice and Ministry of Defence).

While in many domains, the application of PPP can be quite straightforward, in the cases of defence and justice significant issues have emerged. The laws “LOPSI” (*“Loi d’orientation et de programmation pour la sécurité intérieure”*) and “LOPJ” (*“Loi d’orientation et de programmation pour la justice”*) were created in 2002 for the Ministry for Interior Affairs and the Ministry for Justice, respectively, in order to be used for the construction and management of prisons and facilities used by the judiciary, police and gendarmerie. The projects are based on lease-type contracts (*“Autorisation d’occupation temporaire”* – “AOT”/ *Location avec option d’achat* – “LOA”) allowing public real estate to be temporarily held by the private sector, subject to the right of return/purchase in favour of the State. However, publicly-owned property can raise significant and controversial issues when they are delivered to the private sector. In addition to the Defence Decree, a law (Law 2003-73 of 27 January 2003 on 2003-2008 military programming) applicable to real estate, effectively extends the AOT/LOA regime to land held by the Ministry of Defence.

A specific decree relating to defence procurement was passed on 7 January 2004 (the “Defence Decree” - Decree n° 2004-16 “in application of article 4 of the Public Procurement Code and relating to certain procurements for defence needs”). The Defence Decree derogates from the Public Procurement Code with respect to the procurement of supplies and services relating to weaponry, ammunition and military equipment and procurement of services directly linked to military strategy or the employment of armed force. The rules for procurement under the Defence Decree are designed to be particularly flexible, in line with the general trend towards simplification of process which began in January 2004 (Decree n°2004-15) with a significant reform of the Public Procurement Code. The new rules allow the Ministry to define its requirements and the means to meet them throughout the procedure.

It is to mention that the use of PPP in national defence or prisons is highly controversial. Accommodation-type PPPs in France, like prisons, are similar to UK PFI model, and their payment streams include availability and service deduction mechanisms, although it is not always on a unitary basis as it is under the PFI. The scopes of services remain narrow in comparison to UK counterparts. While the UK government has decided to use PFI scheme in prison management and operation, meaning that some prisons in UK are operated by private companies, in France (and in other mainland European countries, as already signalized), prison management or custodial services may not be outsourced (as a part of a scheme described above). These services are still considered as a part of the “*pouvoirs régaliens*” of the State, in the French constitutional order, even there is no explicit consecration of this state monopoly in the Constitution.

## **NPM AND CULTURAL SPONSORSHIP HISTORY**



Definitions of sponsorship, like the ones of PPP, vary and the practice has been described as “*an investment in cash or in kind activity, in return for access to the exploitable commercial potential associated with that activity*”. Cultural sponsorship in its current form appeared initially in 50's in the USA. Companies, mainly the big enterprises in the tobacco market, started to accomplish the mission of sponsors because they faced serious problems of media exclusion in the crucial domain of advertisement, due to the antismoking legislation. They decided to enhance their image, *inter alia* by sponsoring the arts production. This initiative was regarded as very suitable for the achievement of their commercial target. Therefore, in 1968, the Business Committee For the Arts was created, to contribute to the renaissance of culture of the U.S.A. through the financial back of companies.

Cultural sponsorship, coming from legal – type obstacles comparable to the prior phenomenon of “prohibitionism” (namely for the manufacture or sale of alcoholic beverages) in the same country, had a wider impact, on international scale. Indeed, in Europe sponsorship contracting appeared in early 70's, as the entrepreneurial and artistic world of the UK adopted this mechanism. In 1976, Association for Business Sponsorship of the Arts (ABSA) was created, by companies with the help of the British government.

However, the great development of sponsorship took place in 80's, as a part of the established 'Conservative Revolution', through the leadership of Thatcher. The NPM concept consisted, in cultural affairs, in the limitation of the state interventionism while the reduction of subvention had already begun some years ago, let alone the fact that it was one of the reasons of success of the introduction of sponsorship.

The model of sponsorship, adopted in the UK, was regarded as the golden section between the European traditions and the American ones and had a wide impact on the entire continent of Europe, particularly in countries under neoliberal governance, as the concept of business sponsorship is connected with the market economy. Nevertheless, many countries keep taking a rather suspicious approach to this concept, as a means of advertisement for companies.

## **CONCLUSION: “ENGINEER IS AN ENGINEER” AND “ARCHITECT IS A SPONSOR”!**

Financial crisis, public budgetary cuts and liquidity restrictions force governments to develop new, more flexible tools and deontological rules for the provision of public services. UK government used institutional PPPs as a legal and managerial tool, based on the School of Thought of NPM, with which the cultural sponsorship contract model fits in. Speaking for British schools, experience has demonstrated that following the principles of NPM, UK Government first tried to give competencies to Local Authorities, but after the failure of the programme, Government decided to follow a more

centralised approach to procurement, like Greece. It seemed that liberal framework didn't work as expected, in this case.

While the UK PPP model is implemented in a rather liberal framework, following the common law system, in France PPP operates in the strict frameworks of the administrative law, following the jurisdiction of the French administrative courts. This contrast depicts the different administrative approaches of the two states; UK's liberal governance ("*Laissez-faire*") versus the French intervention policy ("*Dirigisme*").

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Last but not least, cultural sponsorship contracting, successfully imported from the USA and to the UK and recently to France, should inspire for the upgrade of architects' status, worldwide. In the UK, "*Engineer is an Engineer*" and registered architects are professionals that are not called "architects engineers" and are legally entitled to supervise the construction of technical works operated by engineers and not by architects. The great challenge is to adopt a new paradigm on international scale for their unique function, technical and artistic in the same time: to promote architects to the intrinsic rank of cultural sponsor!

Therefore, laws should define that Architects are artists of the fine art of Architecture and that Registered Architects should have the right to be promoted to "Architects Sponsors" for cultural sponsorship contracts. This suggested new certification is subject to the successful participation of the interested professionals in Ph. D. degree or master degree or other educational programmes. "Architects Sponsors" may offer their architecture expertise within cultural sponsorship contracts either to the public sector or to the private one in order to provide the receivers with adapted architectural services of high quality. It is to pay special attention to the fact that this proposal has a counterbalance effect, given that architects constitute a rather marginal category of professionals in mankind's history, even in the modern era in which human rights, such as the freedom of art, have been institutionalized in national constitutions. It is to clarify that this original, proposed framework is fully compatible with the existent national concepts of architects as engineers or not.

Furthermore, PPP contract methodology is expected to gain from its suggested osmosis with the inner dynamic of the certified "Architects Sponsors"!

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# HOW DO BRAND IDENTITY AND BRAND COMMUNITIES REINFORCING BRANDS AND THEIR INFLUENCE ON CO-CREATION? A TRANSNATIONAL STUDY OF THE BRAND AXE: IN FRANCE AND TUNISIA

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## ABSTRACT

In order to build long term relationships with customers, companies try to get customers more involved in the activities of the brand. They are now "prosumers" through a co-creation process and social media. The primary objective of this study is to identify, by means of a transnational empirical study, if brand communities influence brands by co-creation. What kind of influence can the virtual brand community have on co-creation? The study will begin by a conceptual framework of Kapferer's brand identity Prism (1992), brand community and co-creation concepts. After this clarification, methodology will be developed and results as well as conclusions and managerial implications will be exposed. Finally the limits of the study and the possibilities for future researches will be presented. Theoretical contribution of the study is as follows: Firstly, the use of Kapferer's brand identity Prism (1992) in order to create a strong brand seems to be helpful for building brand community. Secondly, it proposes a new classification of co-creation. Thirdly, a new method, the netnography, is applied to "Axe" brand in France and Tunisia.

**Keywords:** *co-creation; brand community; brand identity Prism; netnography; Axe, Tunisia; France.*

## INTRODUCTION

The status of the consumer has shifted from a passive status to one described as "prosumer" i.e. a proactive role. This role takes on full significance in the creation of new products and services. Indeed, brands are increasingly drawing on consumers' insights and associating them in the conception of the offer, fully aware of their value and creation potential. This article argues that the customer will inevitably prefer the product or the service in which he has been participating. Indeed, isn't putting the consumer at the centre of the value of the product or service - creation process the very foundation of marketing?

Web 2.0 has enabled companies to develop initiatives to strengthen and reinforce their interaction with consumers. Consumers give their opinions, bring in new ideas, discuss, vote for a product or an advertising poster etc: What is referred to as co-creation. Such actions take advantage of the success of social media and community websites. They promote the formation of communities whose members are no longer subjected to advertisements or other marketing strategies but, on the contrary, are entirely participating in the marketing process. These members are individuals sharing the same passion for a product or a brand and often bringing in new ideas and trends. Firms have moved from a traditional marketing logic focused on consumption towards a participative model based on interaction between brands and customers. Indeed, brands are now creating online platforms and social networks pages devoted to the conception of new offers and ideas and are open to feedbacks (for instance Starbucks with 'My Starbucks Idea' and Nokia with 'Share Your Ideas'). The community share values, norms and representations emerging from similar consumption practices, from collective reception of ad as well as from the visit of similar stores (Sitz and Amine, 2004).

Nowadays, consumers and companies interact and develop personalised experiences inside virtual brand communities. "Brand aficionados" perceive social identities with small friendship groups with the brand and with the company in a system of interconnected relationships (Bagozzi et al., 2012). They create a good condition for co-creation. And few studies investigate brand community within social networks (Zaglia, 2013). Consequently, this study aims to explore how co-creation can occur in this brand community. Moreover, a brand can reinforce the link with consumers by using brand identity Prism (Kapferer 1992). It creates its identity with values and norms that can be shared and adopted by consumers. First of all, a literature review sheds light on brand identity Prism, brand community and co-creation concepts. Definitions are provided and these concepts are refined by differentiating them from other similar concepts. The brand's role in the relation between the brand community and co-creation is established. The second part highlights the method. Qualitative interviews, on AXE brand, as an example and comments from consumers on social networks are gathered together in order to carry out to a netnography approach (Kozinets, 2002). Then, conclusion, discussion, as well as managerial implications and future researches lay down.

## CONCEPTUAL FRAMEWORK

### *A theoretical approach of brand community*

#### *Tribal approach applied to brand community*

The tribal approach refers to the concept of the value of links in the interaction between members of a tribe (Cova, 2006). The value of links implies that the firm contributes, through its products or brands, in addition to the mere delivery of products or the provision of services, to the construction,

development and maintenance of tribal links between consumer groups or communities. The tribe can thus be interpreted as an “emotional grouping around the brand” or a brand community. Consumer community undertakes collective actions toward brand rather than individual action on traditional consumer segment. This community differs from traditional community (tribe) due to their commercial nature (Brogi, 2014).

#### *Specificities of brand community*

In a brand community, members have strong feelings of belonging and a cult of the brand. It generates myths, rites and symbolism qualified as sub-culture. It is a passion that subsumes an “emotional and stable tendency” (Cova, 2011). It is a “living memory” of the firm and consumers (Cova, 2006). Consumer members express admiration, sympathy even love for a brand (Albert, Merunka & Valette-florence, 2008). It can be a bidirectional (consumer- brand) brand attachment (Raies & Gavrard-Perret, 2011). It is a commitment (Gupta & Kim, 2007) for the community leading to brand loyalty (Algesheimer, Dholakia & Herrmann, 2005). Brand community share identity transcending geographical boundaries (Brogi, 2014).

#### *Interactions versus paradox of personal branding*

The brand community has two objectives (Cova, 2011): First, It contributes to social interactions between members (for example BMW or Mercedes) for brand loyalty. Secondly, it encourages consumer commitment to the community: it can be “self-expure” or a “personal branding”. For example, the Ferrero brand with « My Nutella the community » which creates a sub-culture and reinforces the cult of the brand. Consumer marketing replaces brand marketing through online platforms, blogs or the production of content. Social media are useful for personal branding and for all the communication strategies of communities. Generalist networks like Facebook can enrich interactions between community members. They can be useful for recruiting fans and community members who share their passion on line and off line (For example Aubade lingerie brand, with its “seduction lessons” ad).

#### *Brand community: transition from target to partner*

Customers can be events, ideas or brand accessory producers. This can help firms if they recognize and accept that consumers have competences to transform and enhance companies' offers. Cova (2006) names it “consumer made”. It is a strategy of outsourcing, a process of co-creation of value between brand communities and firms. Firms can use brand identity in order to reinforce brand attachment and creativity.

#### *Brand Identity Prism and brand community*

The brand's identity prism (Kapferer, 1992) is on the one hand, the brand's external characteristics (physique, relationship, reflection); and, on the other hand, internal characteristics (personality,

culture and self- image). Aims are to make a comparison between the ideal brand's identity and the image perceived by the community. The objective is a correspondence between brand identity and the identity of the community. In this case, consumers become brand advocates against attacks from other consumers.

<b>Physique:</b> the tangible qualities of the brand, what is externally perceived? For instance: product features, packaging
<b>Relationship:</b> the relationship between the brand and the consumer: exchange or transaction
<b>Reflection:</b> The brand or the product's target
<b>Personality:</b> the brand's personality traits, what it conveys through its brand image. The personality consists on 5 factors based on the OCEAN model: Openness, Consciousness, Extraversion, Agreeableness, and Neuroticism
<b>Culture:</b> the brand's values developed over time.
<b>Self-image:</b> This is what the consumer is looking for and finds in the brand

**Table 1: KAPFERER'S BRAND IDENTITY PRISM (1992)**

The technology web 2.0 can reinforce the social interaction in the Online Brand Communities (OBCs). Video sharing, blogging, social bookmarking, social networking amplifies interactions in order to develop brand identity in OBCs. Multiple virtual connections among consumers contribute to build relationships, share content and interests in brand consumption (Fournier & Avery, 2011).

*A theoretical approach to the co-creation concept*

Consumers exchange information and enter into bilateral dialogues with firms for co-creation.

*From the Product- Dominant Logic (P-D logic) to the Service- Dominant Logic (S-D logic):* A normative framework separates production from consumption without making consumers participate in the process: customers are thus exogenous. A new collaborative logic emerges where the consumer partners up with the company: the S- D Logic (Vargo & Lusch, 2004). The consumer becomes a co-producer and products are personalized. Service refers to doing something with and to someone. ("Marketing with" / "marketing to") (Ezan & Cova, 2008).

The main difference between the SDL and the PDL lies on the fact that customers, employees and organizations operate as resources in the value-creation process (Vargo & Lusch, 2008).

*From a new brand Logic in the Service- Dominant Logic (S-D logic)*

Brands have to mobilize the right resources to build strong brands. Consumers and brand communities have to be involved in the brand's value-creation process (Vargo & Lusch, 2008). In this new logic, brand-value emerges from the interaction between customers and/or all stakeholders and firms. It is a "transcending view of relationships" (Vargo, 2009). Interactive experiences take place in complex co-creative environments. Experiences co-created with other actors are acts of engagement

toward a brand. Consumers consider that brands are collective, cultural goods and not an intellectual property of the firm (Cova & Dalli, 2009). Co-creation process is continuous, social, dynamic and interactive between the firms and the brand and between consumers (C2C) thanks to chats, blogs, and social networks. It is a consumer engagement in virtual brand community (Brodie & al., 2013).

#### *Participation and participative marketing*

In this context, the terms collaboration, cooperation and contribution are all synonyms and can interchangeably be used with participation. The participative or collaborative marketing's goal is to motivate consumers to actively take part to the development of products, communication, new services or promotion of the brand. Moreover, participation can be behavioral or physical participation with, for instance the involvement in an activity; and intellectual participation such as knowledge sharing (Harris, Harris & Baron, 2001).

Participative marketing can take different forms: voting for movies proposed by Air France on long-distance flights, for a TV advertising script (Nespresso) or for the next catalog cover (Linvosges) ... In these examples, the product, the TV script or the catalog have been designed by the company. The consumer's task is to guide the company's choice between different ranges of products or ads. This participative approach is used in "My Starbucks Idea". This box generates more than 75000 ideas but only a dozen have some practical application. The consumer doesn't know if his opinion will be taken into account and if his involvement toward the brand will be useful. His input could be minor.

Real co-creation involves the upstream consumers in the creation process as well as those more actively involved. Often, co-creation deals with product design (Nivea, Lay's in Belgium ...) or with communication campaigns (Crédit Agricole, Dim). Customers are considered as a partner of a firm's production process (Mills & Morris 1986). Customers' participation can be found during the "co-conception" product design phase. The "lead users", bringing in their expertise, can assist brands with the design of products. Their perceptions and preferences help to identify future needs and contribute to find new products, processes or services (Von Hippel, 1986). This collaborative approach consists, in defining the characteristics of lead users, selecting individuals on the basis of these characteristics and appealing them so that new products' concepts can emerge (Ezan and Cova, 2008).

The web 2.0 environment creates connectivity and participation. In online communities, lead users and consumers become a powerful source of innovation (new products, services, original ideas, experiences...) (Wu & Fang, 2010). Buttons "share this" or "like" on Facebook amplify the spread of information and innovation thanks to one billion users (Facebook.com, 2013). This social media creates "a new world of screen-based communication on computers, and increasingly mobile phones" (Patterson, 2012) and a new embedded brand community at high speed and low cost (Zaglia, 2013).



The power is shifting from marketers to consumers who can innovate and allows critical consumers to emerge to call a brand into question (Fournier & Avery, 2011).

## METHOD

### *The netnography approach and data collection*

This study has undertaken a netnographic approach. It is “a new qualitative research methodology that adapts ethnographic research techniques to the study of cultures and communities emerging through computer-mediated communications...” (Kozinets, 2002). Brand communities on social networks such as Facebook are focused on. The Axe brand community has been selected (the Facebook community pages “the Axe Effect”) in France and “Axe Dark Temptation” in Tunisia). Moreover, during a qualitative exploratory analysis performed in the two-country study, the example of the Axe brand was highlighted, Axe being perceived as a youthful and empowering brand attracting young seducers and seductresses. Indeed, young people clearly identify themselves with this brand. For all these reasons, gathering of rich and detailed information has been possible.

### *Description of the events*

The objective was twofold: first to understand, the Axe’s brand identity prism and its impact on brand community and, second, how co-creation could influence the perception of a brand within communities located in two distinct geographic areas.

### *“Axe Dark Temptation”: a seduction competition in Tunisia*

The idea was to establish an Axe studio in the Tunisian university halls in order to take pictures (from the 1<sup>st</sup> of August 2012 till the 30<sup>th</sup>). The principle: every boy had to seduce as many girls as possible and convince them to take an ‘Axe’ picture, thereby displaying a sense of creativity and imagination. Pictures posted on Facebook were submitted to a vote. The best picture was awarded a price of 5,000 Dinars (€2,500). The winning picture is shown below.



The “Axe Boat in France” displayed on the “Axe Effect” Facebook page, is much anticipated by all the Axe brand community members. In 2012, from the 30<sup>th</sup> July till the 7<sup>th</sup> August, the Axe boat celebrated its 10th year. It invited clubbers, club members as well as the brand community to get aboard a prestigious yacht. Once on board, the guests discovered a glamorous, VIP, and fun atmosphere. The

Tour ended with a “Full Moon Party” which gathered French and International celebrities around an exceptional concert.

Members have to play the “Anarchy Run” Facebook game and beat the scores of other participants. It is an “advergame”, an online game with the brand as signature. The game’s trick is that an alarm is triggered; the player needs to disarm the guard tracking him. The player has to use, the latest Axe deodorants, “For Him” and “For Her” as weapons. The player having the best score wins a VIP pass; the highest score wins the ultra VIP pass that allows him or her to party on the Boat.



#### *Interpretation and data analysis*

##### *The setting in a universe of seduction through the brand’s identity prism*

Thanks to TV ads, to pictures and videos shared by members as well as analyzing comments on various pages visited on the social networks, Axe brand’s identity prism is elaborated.

**Personality:** Community members identify themselves with the Axe brand personality :1) the openness , meaning the sensitivity to the esthetical aspects 2) the extraversion, meaning the social characteristic and seeking people’s company (perceived through the collective participation of members in different events of the brand, through the pictures of young people during the “ Axe Dark Temptation” campaign ,“ the Axe boat “ tour and the “Anarchy Run” game to have fun) 3) the agreeableness, meaning the “bon-vivant” characteristic (members like to party), good mood and seduction. It is the intrinsic characteristics of a brand qualified as “sexy”, “fun” and “cool”. They become members’ characteristics.

**Culture:** The Axe brand fits into a culture of seduction in a world of fragrances. The brand develops fragrances with different flavors that reveal and strengthen men’s seductive power. The community members strongly identify themselves with this culture and share the same values and norms.

**Self-image:** The community members glorify the brand and take brand’s characteristics, beauty and seduction, as the brand’s slogan states: “Spray more, get more”. Thanks to Axe, men become more handsome, attractive and seductive.

**Physique** consists in a whole range of deodorant products, a packaging with a round shape. The logo is either black or white.

**Relationship:** Members communicate directly with the brand. The relationship can be described as close and friendly. The brand helps men to be more attractive and self-confident.

**Reflection:** the brand represents young and dynamic seducers or seductresses.

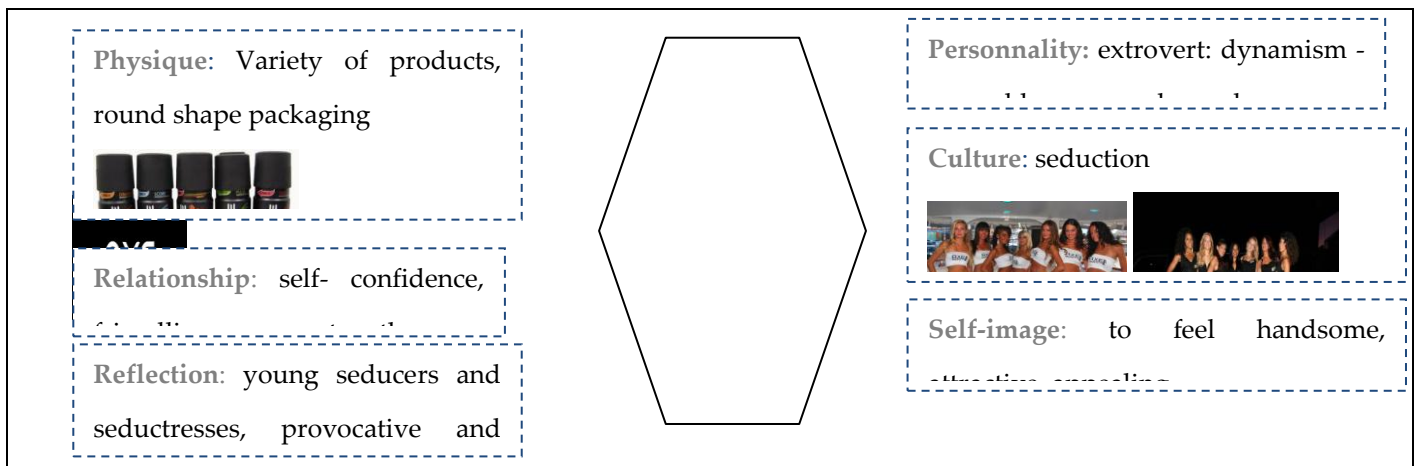


Figure 1: *BRAND'S IDENTITY PRISM OF AXE*

This analysis concludes that there is no gap between the positioning wanted by the brand and the positioning perceived by the community. Thus, there is very strong brand identification; the brand's identity becomes the community's identity. Brand community members become the brand's ambassadors, promoting an "Axe way of life". The brand's values, norms and culture become theirs and members will take its defense despite any opposition. The events, games organized by Axe create solidarity between members and help to recruit other members. The community is able to influence members' perceptions and actions (Algesheimer, Dholakia & Herrmann, 2005) and their capacity to co-create.

#### *Interpretation of events and co-creation*

"Axe Dark Temptation" event in Tunisia is a co-creation, "a new technique of management, in which consumers and producers join in to create products and experiences" (Prahalad & Ramaswamy, 2004). The event brings in passive members for the communication strategy (participate through voting) and active members (creating content: showcase creativity when posting a picture). There is the creation of both an ad and experiences shared by participants.

"Axe boat" event co-creation is still occurring. Axe brand calls on its Facebook community members not to create an offer or a product, but to participate to an "Advergame" and to the Axe boat tour. First, there is a co-creation of experiences by the game involving an active participation and identification with the brand. Secondly, the Axe boat tour offers a unique experience to the community members.

*Classification of co-creation:* Inspired by Cova's model (2008), this classification integrates two criteria for co-creation: interaction (strong and weak) and duration (on a short-term: punctual and limited to the event; and on a long-term: takes effect after the event):

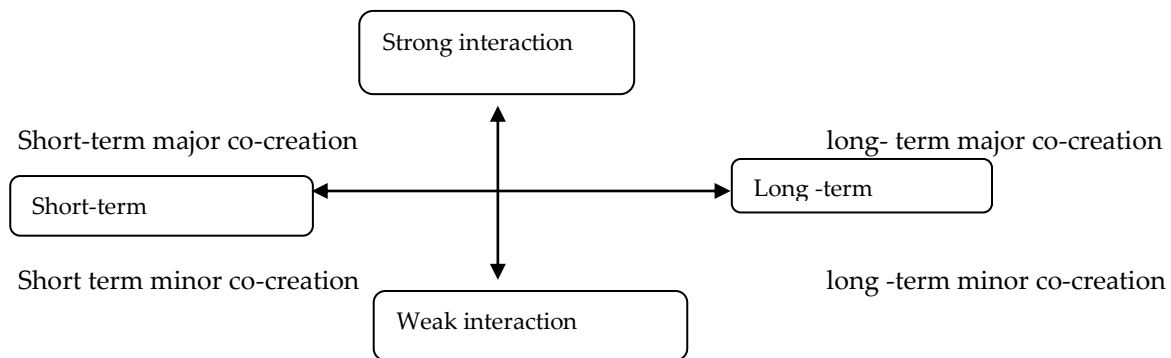


Figure 2: *CLASSIFICATION OF CO-CREATION*

The level of interaction defines the type of co-creation. Strong interaction, defined a “major” co-creation. Weak interaction, qualified as “minor” co-creation. Four types of co-creation are identified: major co-creation on a long-term basis, major co-creation on a short-term basis, minor co-creation on a long-term basis and minor co-creation on a short-term basis.

**Major long-term co-creation** refers to the strong interaction existing between the members of a same community and between the community and the brand itself. This interaction is maintained over time and continues outside the participative event. The “Axe Effect” Facebook page shows that, beyond the co-creation of shared experiences, co-creation occurs outside the Axe boat event itself. Interaction starts and continues before and after the event. The brand community is not only interested in sharing the Axe Boat tour pictures or to post comments regarding an event. Members also give their feedback either on a product or the brand and provide new ideas. The community’s influence over brands is even more important than members’ interaction. “The creative contribution can happen when the participant is best suited to work on it, with maximum flexibility, and not only during creative sessions at a predetermined time” (Divard, 2010). Members share the same values, namely seduction and flirt, and are very active: they take part in the “Anarchy Run” game and in the “Axe boat” events, and they don’t miss any occasion to express themselves, give their opinions and participate in events organized by Axe. The incentives for participating are mostly intrinsic: entertainment (enjoy themselves) and idealism (accordance with their own values).

**Short-term minor co-creation** refers to the “Axe Dark Temptation” event in Tunisia where participants generally belonging to online communities (Facebook or Twitter, forums, websites...), but share little or no common values with the brand. Participation occurs on a short-term or temporary basis, corresponding to the duration of the participative event. Interaction between community members is limited to the event (comments of pictures and videos). Members’ feedback and reactions stop at the end of the competition. Individuals lose interest for the Facebook page; they don’t react

anymore and expect a new event to be launched. The participation in the “Axe Dark Temptation “ is mainly motivated by the financial profit and by the experience of conviviality and sharing nice moments (Cova, 2011). *“I participated in this competition mostly to have fun, I saw my friends participate and I wanted to do the same!! I also thought that the idea and atmosphere were very nice and, after all, why not earning money by doing something fun?”* (Amine, 22 ans)

**Short-term major co-creation:** Danone has designed an advertising campaign to celebrate the launching of one its new product. Internet users have participated in the elaboration of new advertising concepts and videos designed for the competition (Pearse, 2011). The competition is temporary, on a short-term basis and limited to the participative event. Interaction is strong since winners have been invited by the brand and advertising agencies to discuss the advertising concept created.

**Long-term minor co-creation:** It means that interaction is weak between the community members and between the brand and the community; and it takes place on a long-term basis with, for instance, “My Starbucks Idea” or Carrefour’s ideas boxes. In these two examples, consumer-inputs often are a simple improvement of the existing offer. Members submit their ideas on the company’s platform and to the other members without interacting with the brand. The ideas box remains permanently open; it is reusable on the long run.

#### *The negative and positive effects of brand community on brand*

The netnography approach led to draw effects of the community on brand.

#### *The positive influence of the Axe community over the brand*

1) *Brand stretching:* the co-innovation: Community members can indirectly express latent needs and bring new ideas. The brand can take advantage of their comments and inputs to launch new offers and products into the market and to improve old products (co-innovation) (Cova, 2008). The innovative propositions are made before the production process. For example, Julien, one member, asked: *“Oh I just clicked! Why Axe would not roll out a shaving cream? ;)* Axe’s reply: *“Thanks for the idea Julien, we’ll keep it under our hat!”*

2) *Improvement of the brand image:* The brand image refers to “perceptions of a brand as reflected by the brand associations held in the consumer’s memory”. The brand image creates value by helping consumers to process information, differentiating the brand, creating reasons for buying it, provoking favorable feelings, and promoting brand-stretching. The brand image is *“everything that a consumer can associate to a brand”* (Korchia, 2000).

Calling on brand communities to make the brand more attractive: this is where the appeal of co-creation lies. In order for co-creation to succeed, it is necessary to find means to make internet users

more involved. The “Axe boat” and “Axe Dark temptation” succeeded in attracting young people and achieved their mission: the brand image is now strengthened. The Axe brand seeks to achieve young adults’ dreams and to fulfill its promise: “*spray more, get more*”. Youc, one member, said: “*Today I used the Axe brand and I was hit on eight girls*”.

3) *An intensive communication: a co-promotion in favor of the brand:* A networking effect: the community uses its own network to broadcast the brand advertisements through word-of-mouth. The brand takes advantage of the network to communicate multilaterally. The members create events and are responsible for spreading updates and information about the brand. Indeed, through communities, social networks provide new ways of reaching out and engaging with their members and/or with a brand. The community can act as a co-promotion tool (Cova, 2008). Etienne, a member asked: “*Hello, I am studying at the Ecole des Ponts et Chaussées, a French engineering School. At the beginning of the academic year, in September, a new students’ orientation weekend (WEI in French) will be organized. To do so, we, the second- year students, are going to create groups composed of 5 to 6 students who will welcome the future first-year students. With some friends, we wanted to create a group called “the Muchas MarWEIcas, referring to one of your advertising campaigns that we found particularly funny. Consequently, I would like to know if you had any promotional tools that would help us organize a nice party weekend and we would promote your brand at the same time. Thank you in advance*”.

4) *A willingness to participate in advertisements:* ideas and conception of ads are initiated by consumers. The community is involved in the strategy of co-promotion thanks to strong identification. David, defining himself as “an Axe boy”, states: “*if you are looking for a scenarist for your TV ads, contact me by pm. PS: I have already written a scenario*”.

5) *Strong relationship with the brand:* Loyalty, attachment or commitment: the Axe community members don’t miss an opportunity to constitute their own collection of the whole range of Axe’s deodorants and to showcase it. This shows a commitment, even a passion toward the brand that can lead to loyalty.

*Sharing of memories:* Members share the same passion for the brand and common memories. Frederic, an Axe community member, states: “*And to think that this idea was born in a small office based in Nation – in Paris- while eating two pizzas and drinking coke. Ten years already. A hug to all that participated in this adventure*”. Jerome adds: “*the Axe Boat was an amazing experience; I was there 4 years ago, such a good time*”.

The positive effects of the brand community through co-creation are thus numerous. These effects go all the way from the simple communication through word-of-mouth to the improvement of the brand

image and the development of both inter-members relationships and between brand community members and the brand.

*The negative influence of communities: a communication to the detriment of the brand*

1) *False*

*advertising:* When the brand doesn't respect the commitments made, messages posted by members on social networks can inflict injury to the brand by denouncing false ads. (Zeroo states: *"why is it that no woman is hitting on me, it should be working since I'm using Axe, you liars...false ads. They are stealing my money..."*) or by expressing discontent toward a product. Sevap asked: *"this is supposed to be antiperspirant and anti-odor! this doesn't have any effect on me ! .. After an hour, I smell bad and I sweat"*).

2) *Hindrance to events participation and solidarity with disqualified friends:* Some people decide to unsubscribe from the "Axe Effect" Facebook page to show solidarity towards their friends. This constitutes a drawback for such a brand which counts a lot on the creativity of its community in order to grow. The co-creation of experiences as seen in the "Axe Boat" example is limited to the members who succeed in beating the best scores of the "Anarchy Run" game. Consequently, other members find themselves marginalized, being left over as they can't participate in the event, in spite of the attachment they feel toward the brand. This preliminary selection may result in dissatisfaction and can affect the brand image. Jennifer says: *"hello, honestly it is not cool to have disqualified Frederic Vermotte who did his best to ask for all his friends' votes, so just so you know, I'll unsubscribe from Axe"*.

## CONCLUSION, DISCUSSION AND MANAGERIAL IMPLICATIONS

This study answered several questions: how the co-creation concept emerged; how the status of the client has shifted from being a customer to a producer and actor; and how the "client experience" contributes to value-creation. A brand having a strong identity such as Axe becomes involved in the creation process through the participation of its community in the brand's events. This participation leads to interaction between members and between the brand and members (communication "one to many") in order to generate brand value. Members have a direct impact on the brand: innovation and/or innovation failures, communication in favor and/or in disfavor of the brand, the improvement and/or deterioration of the brand image, the resistance of community to change, the repositioning of the brand ...

The analysis shows a more active, participative, resistant, activist, playful, social and communitarian consumers (Cova and White, 2010). A new typology of co-creation (minor or major) is proposed on two criteria: the interaction and duration (on a short /long period).

Communities require their favorite brands to be more actively involved in their activities. Ads co-created with brands are an indication of consumers' dreams (seduction, money, happiness). Hence,

firms need to resort more to co-promotion. But they have to be careful: opponents to brands are likely to create messages denouncing what they consider as the brands' bad deeds. On the US market, a four-wheel drive brand offered internet users to create their own TV ads. It saw pop up on social networks ads showing the polluting nature of their cars.

In this study several contributions are then withdrawn: how brand communities can influence brands through co-creation, how the brand identity prism will reinforce a strong brand community and a new classification of co-creation is proposed.

## LIMITS AND FURTHER RESEARCH

The main limit of the empirical study is the generalization of results.

The study focused on one example of the Axe brand community. For external validity, and in order to validate the classification of co-creation, other brands and products are needed.

In addition, it would be essential to generalize the use of the Brand Identity Prism (Kapferer, 1992) to create a strong identity brand. This would be a prerequisite for a strong link between the community's members and the brand. The brand community transcends frontiers and has to adhere to its values, norms, culture and would then be a real incubator of co-creation. Through the study of other examples, we have noticed two key success factors of co-creation: It is efficient when it concerns a small number of consumers: the ones who want to participate or the ones who have a real expertise.

Firms have to be involved in a lasting manner by establishing a constant dialogue between clients and company employees (for instance Oxyane had to relocate its R&D to certain consumption areas in order to develop the Decathlon brand (seaside and mountains areas)).

Finally, managers have to find ways to reduce the risk of consumers taking control over brands. They have to know when co-creation is appropriate and they have to balance consumers' power and counter-power and to initiate a co-power approach. Further investigation of the effects of co-creation through brand communities should be looked into, especially questions such as: what is the level of control over a brand? How to fix clear limits for brand community members?

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# TOWARDS A CONCEPTUAL MODEL FOR E-BUSINESS DEPLOYMENT IN LIBYAN UNIVERSITIES (A CASE STUDY OF MISURATA UNIVERSITY)

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## ABSTRACT

There is a lack of literature on technology utilization in Libyan universities and this paper attempts to make a worthwhile contribution to this literature. The paper explores e-business deployment in Libyan universities, with an initial focus on the university of Misurata, situated in the north of the country between the country's two main cities of Tripoli and Benghazi. It examines the current and potential uses of e-business, and assesses the barriers to wider use of e-business systems and technologies. Existing models to measure e-business deployment are applied and assessed, and a new model is developed to better gauge the current situation at process level in these universities. The model will be further applied at other Libyan universities and will act as a yardstick for comparing and progressing the operational implementation of e-business in these organisations.

**Keywords:** *E-business, E-business models, Libyan universities, technology strategy, SCALE model, process change, case study*

## INTRODUCTION

With the rapid advancement of information and communications technologies (ICT) in the new millennium, electronic business (e-business) has become a significant element of organisational strategy to achieve competitive advantage (Yang and Lee, 2012). Previous studies have viewed e-business in different ways. Wu et al. (2009), for example, see e-business as an entity, an organization which conducts its day-to-day business functions using the internet, websites, enterprise information portals and/or other electronic network technologies. Anitesh et al. (2005), on the other hand, view e-business as a process that involves the total digitization of value chains within an organisation. This research assumes the wider definition of e-business as a process, as defined by Chaffey (2002, p. 13) as "all electronically mediated information exchanges, both within an organisation and with external stakeholders, supporting the range of business processes". The term therefore is taken to include the

use of all information systems and related technologies, irrespective of whether they use the internet or are accessed via web technologies.

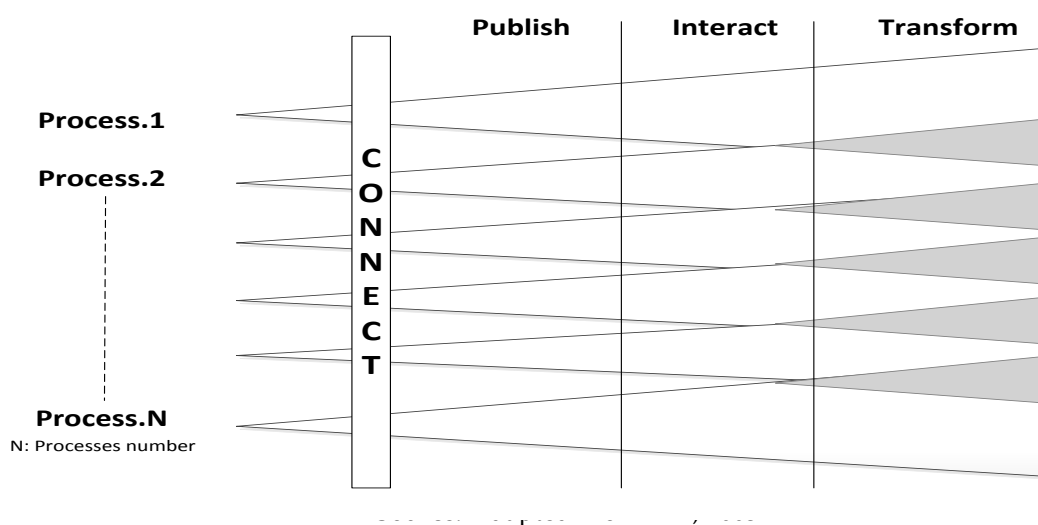
Previous studies have researched e-business deployment in large organisations, including some universities. Espinoza and Gonzalez (2012), for example, concluded that universities in Chile have become dependent on ICTs for managing their operations and providing services. In a recent study, ITU (2012) reported that Libya has recently undertaken administrative reform, especially in universities, supported by a strategic plan for developing e-business infrastructure, thus making e-business applications in the higher education sector a key component of its overall development plans. The Libyan Ministry of Higher Education (LMOHE) fund and manage eleven public universities, with a common management, financing and regulation system which aims to improve the universities' management and services (LMOHE, 2012). Kumar and Arteimi (2009) have observed that Libyan institutions still face significant challenges in bringing about a more effective use of e-business in their daily administration processes; these include a lack of e-business infrastructure, a lack of qualified personnel and an institutional resistance to change. Similarly, Al-Mobaideen's (2009) study of technology adoption in Jordanian universities found a number of factors were inhibiting technology deployment, including strategy, infrastructure and networks, funding and sustainability, and organisational culture.

The research discussed in this paper attempt to support the universities in developing more efficient ways of managing core organisational processes and associated information flows, and explores the cultural and operational implications of using e-business technologies and related processes. It is designed to contribute to knowledge in the context of university operations and management, investigating how e-business deployment can contribute to universities' overall performance. It also suggests a new model for assessing the effectiveness of e-business within Libyan universities.

## **THEORETICAL FRAMEWORK**

Over the past decade a number of e-business models have been developed and designed in Western countries, where the technological and organisational environment is still significantly different to that in a developing country such as Libya. This study will examine if and how a number of these models may be used or adapted in the Libyan university context. The UK Department of Trade and Industry (DTI) e-business adoption model identifies five simple stages in developing e-business capability, providing an evolutionary viewpoint on how organisations might develop their online strategies (DTI, 2003). Another model, the Connect-Publish-Interact-Transform (CPIT) model, analyses e-business adoption at individual process level, allowing a more in-depth assessment of the impact of e-business on organisational operations (Wynn, Turner and Lau, 2013). In this model, 'Connect' indicates the basic

use of ICT applications such as e-mails for messaging, and internet tools for information gathering. 'Publish' refers to the publishing of electronic information, generally via an organisation's website. 'Interact' indicates some interaction between customers, employees or business partners with the host organization via their website, which could be, for example, the placement of an order by a customer or end consumer. In a university context, this could be a dynamic website that provides accessibility and flexibility for submitting application forms and orders online, or an integrated system agreed with partners and stakeholders to interact with the organization via the website. Note here, that in the context of the original CPIT model, a narrow definition of e-business is assumed, centering on the use of the internet and websites. Finally, 'Transform' refers to the deployment of advanced e-business systems that allow the organisation's processes to be automated, coalesced and transformed.



Zuboff's concepts of automate-informate-transformate are another means of evaluating e-business capabilities at the individual process level. In this context, e-business is viewed in line with its wider definition, almost akin to ICT deployment. 'Automate' implies the simple use of technology such as computer systems to support a process; 'informate' requires that information systems are being used to create management and operational information to advance process improvement; and 'transformate' means that the deployment of e-business has had a significant impact leading to a degree of transformation in the organisational process. This framework has been used to assess information systems in Libyan banks (Sharkasi and Wynn, 2011), and in Libyan oil companies (Akeel, Wynn and Zhang, 2013).

The Design - Actuality Gap model developed by Heeks (2002) identifies four main elements of change that are key to transitioning an organisation from local actuality - where the organisation is now - to its future state or design (Figure 2). While Heeks' model can be applied to any business transformation, in this paper it is used to provide a perspective on the deployment of e-business. The model provides a view of the possible transition from the current level of e-business deployment to the targeted 'design' stage. The transition is based on meeting certain criteria and standards in four interrelated elements of

change – people, information, technology and processes. Regarding process change, which is a central focus of this research, Harmon (2009) has argued that process redesign should not only look at the top level process functions, but should also examine how the lower level activities are managed day-to-day, looking at how activities are planned, communicated, organised, monitored and controlled. Another body of literature looks at how processes gain in maturity and sophistication as an organisation grows. The Capability Maturity Model (CMM) defines five levels of process maturity that an organisation goes through as it grows, initially starting without process disciplines, to a developed organisation where all processes are measured, managed and reliably performed (Harmon, 2009). This concept has been adapted for use in major systems projects that can be aligned with the adoption and progression, within an organisation, of Business Process Management (BPM) maturity models (Van Looy, De Backer and Poels, 2014).

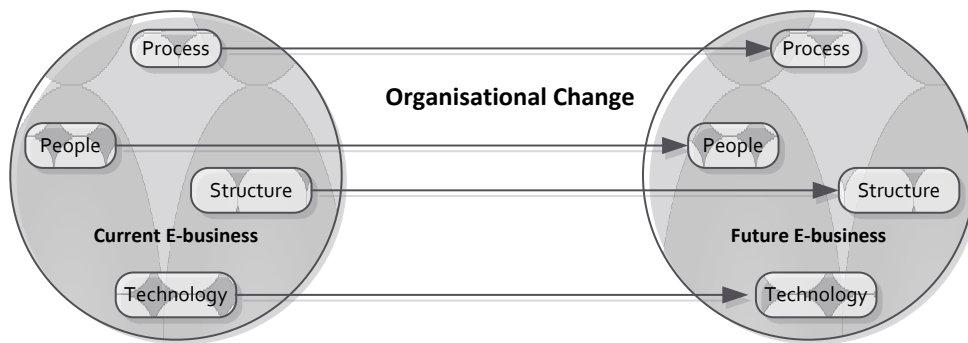


Figure 2. *Design -Actuality Gap Model*

Source: Adapted from Heeks, 2002

Within this theoretical framework, this paper addresses the following research questions:

**RQ1.** What is the level of e-business deployment in Libyan universities (using Misurata university as an initial case study)?

**RQ2.** What are the key issues that impede the wider deployment of e-business applications and related information systems?

**RQ3.** What is the most appropriate model or framework for assessing and comparing e-business deployment in the universities of Libya?

## RESEARCH METHODOLOGY

Saunders et al. (2009) defined research strategy as the general plan of how the researcher will go about answering the research questions and they also noted that a case study strategy can incorporate multiple cases, thereby increasing confidence in the resulting data and research findings. This research project adopts a multiple case study approach - if two or more universities exhibit the same concept or

model, replication could be applied and analytic generalisations could be informative to other similar institutions; however, this paper reports on findings from the first case study researched as part of this wider project. Other relevant studies have adopted similar approaches. For example, Prananto et al. (2003) studied eight case study companies to see how the companies treated their e-business initiatives at different stages of maturity, while Al-Mobaideen (2009) examined ICT deployment in Jordanian universities using a qualitative multiple-case study approach (four Jordanian universities were investigated). Sharkasi and Wynn (2011) used a multiple case study approach in their research into the deployment and evaluation of accounting information systems in Libyan commercial banks. Given the nature of the research questions, the research adopts a qualitative methodology which will use multiple cases (Yin, 2009), and an inductive approach, allowing generalisations to be made from the case study findings. The time horizon is cross-sectional as data are collected only once. For data collection, the study uses multiple-sources of evidence; these include a structured questionnaire, open qualitative semi-structured interviews with many different organisational actors, document analysis, workshops, and observation.

The researchers are centrally involved in the phenomena being studied, and in the process of data collection and analysis in order to answer the research questions. The philosophical perspective is thus based on the ontology of subjectivism, and the epistemological position is interpretivism. The study population is the eleven Libyan public universities. In the completed study, up to six Libyan universities will be the subject of detailed case study investigation. At each university a range of investigative activities are being undertaken to gather and analyse the data and information. These activities include ascertaining overall strategy, mapping of organisational processes and sub-processes, assessing information requirements, systems architecture assessment, and overall review of e-business functions and capabilities at process level. This research also explores the cultural and operational implications of using e-business systems and technologies to support and manage core processes and provide better services.

## FINDINGS

### *E-business deployment at Misurata University*

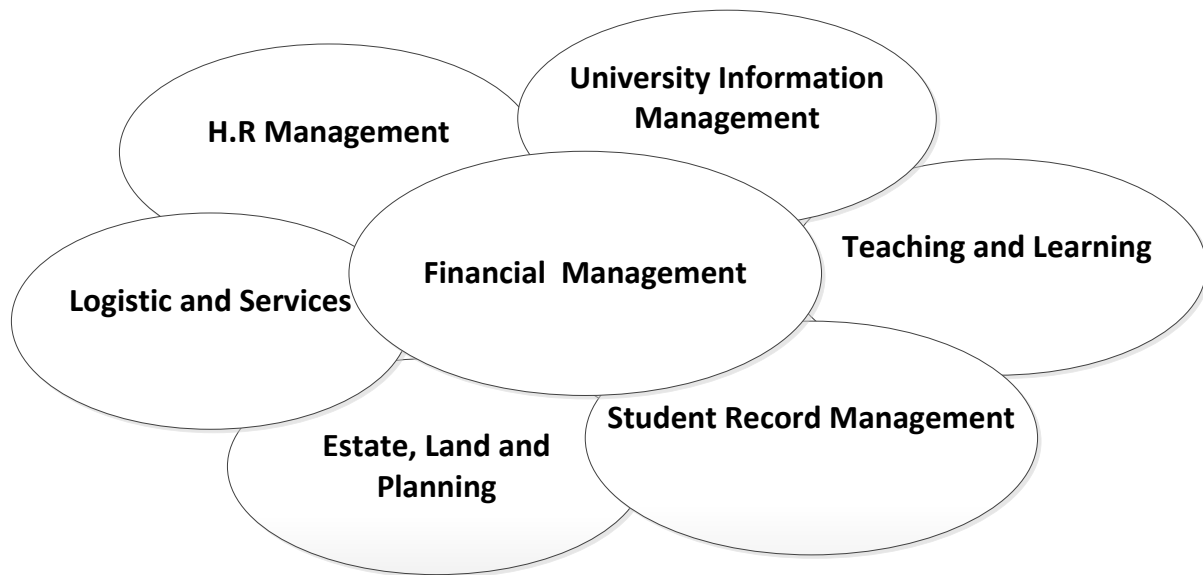


Figure 3. *Main Processes at Misurata University*

Initial process mapping suggests there are seven main processes operating at the Libyan universities (Figure 3). Process definitions are based on the explanation of the people involved in performing the process and outcomes were agreed with them. Each process contains a number of sub-processes which reflect the activities and information flows within that process. This acts as a framework for allocating current e-business applications and assessing their capabilities in supporting processes and sub-processes.

At Misurata University, the human resource management process was the first to use e-business technology. An in-house designed system - built by third party locally based programmers in Visual Basic and Delphi, with an SQL Database - was introduced in 2006 to record, store and report personnel data on university employees and staff. Reports are provided monthly, quarterly, bi-annually, and annually. The system is used by five employees to administer vacations, staff changes, and retain the classified details of Libyan and foreign university staff. However, it is a stand-alone system which is digitally isolated from the university's networks and other systems. Data is gathered manually and prepared by using software packages (e.g. MS Word or Excel spreadsheets) before entry into the in-house system. There remains a high degree of manual and semi-manual processes and a lack of information sharing.



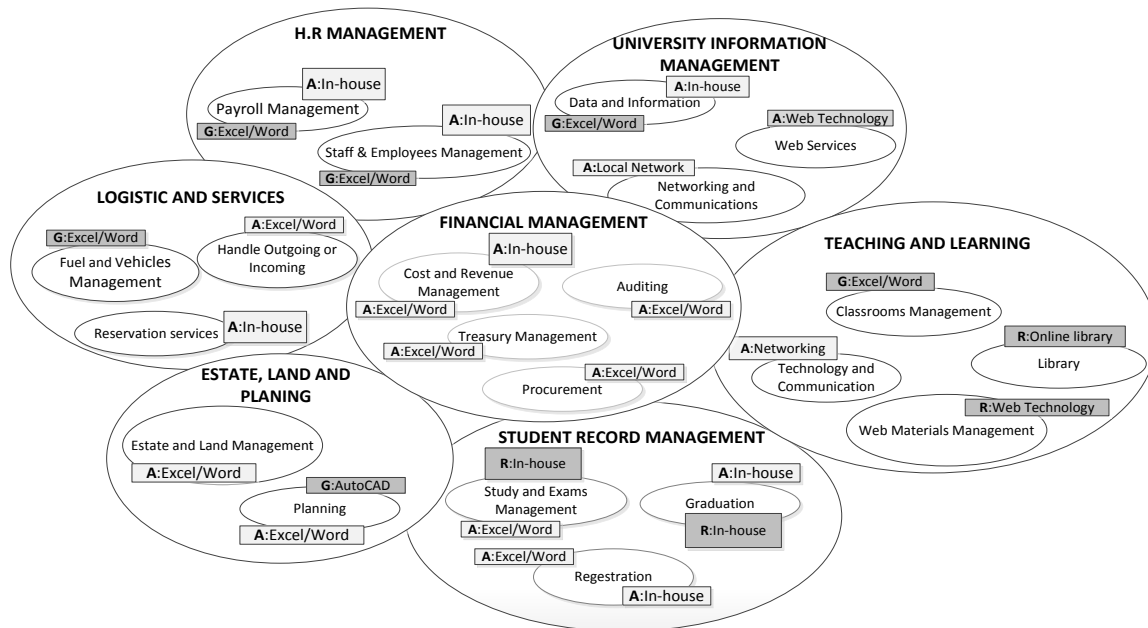


Figure 4. *Systems Profiling by Process and Sub-process at Misurata University*

**G (Green):** indicates a system that is sound and does not need replacing.

**A (Amber):** indicates a system that may need replacement.

**R (Red):** indicates a system is defective and needs replacing

Similarly, within the student records management process, the university has developed and used an in-house system for the management of basic student records for the last twelve years. This system was again developed locally by third party programmers using Visual Basic and Delphi. There are three main systems functions or modules: student registration, study and exam recording, and graduation records. Students' data are still manually gathered before entry into these systems. There is a basic local network connectivity which supports data entry, editing and records update from several internal interface portals (Figure 5). In the engineering college there is now an elementary web portal which supports web-based applications, providing student access to read and update certain designated details related to their academic modules. However, even with these e-business systems, there still no electronic ID student card to identify students as members of the university community. Many of the staff, employees and managers still do not have sufficient knowledge of the practicalities of using of e-business systems in the university's daily work; so there are still real difficulties in the use of e-business in the student record management process. For example, in Misurata University, eight colleges follow an academic year system and three other colleges still follow a semester system. As a result, it is problematic for staff in student records to consolidate the processes required to complete their work, which leads to a complexity of design and implementation of these systems.

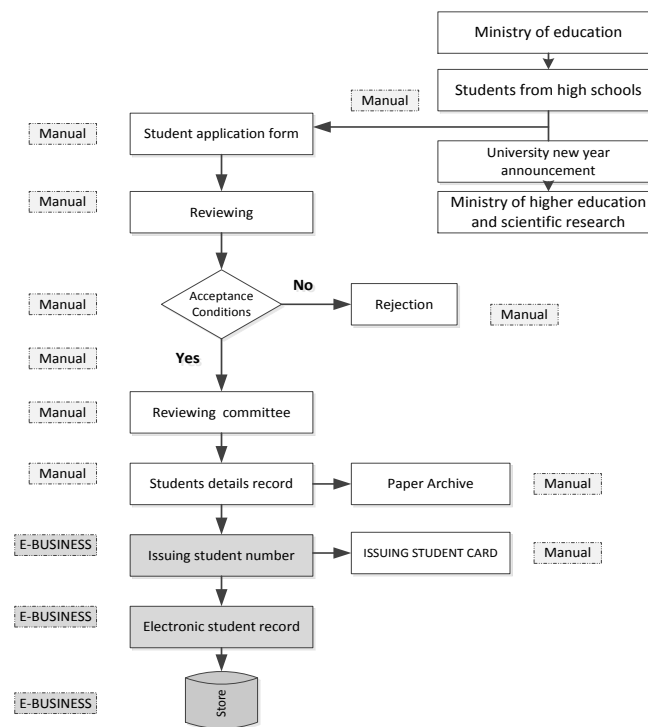


Figure 5. *New student registration flowchart*

The financial management process exhibits the most advanced use of e-business technologies in the university. Again, bespoke in-house systems are used in conjunction with MS WORD and Excel. Four in-house systems have been developed locally using Visual Basic and Delphi programming languages, covering a range of functions - employees and staff salaries, student scholarship and grants, the national ID records, and budget reconciliation for financial year end reporting. However, with the exception of the salary system, the use of paper based forms remains for recording data prior to entry into these systems; and these systems are isolated from other university systems and there is no access remotely via a web-portal nor are they linked through a local internal network. Nevertheless, in the financial management process, more than any other, the University relies heavily on current e-business systems, and some of these systems could be acceptable in the mid-term, especially if they could be accessed more widely through the upgrade of the supporting technology.

The university's estate, land and planning management process encompasses the management and supervision of the university campuses, buildings, lands and investments. As illustrated in Figure 4, there are two sub-processes. There are some e-business applications available such as MS WORD, Excel, and AutoCAD, which are used for printing or the preparation of quantity tables and simple map design. According to the manager of this process, only 10% of users have the ability to use information

technology applications and devices. The university's estate inventory is still performed manually. University buildings and land distribution are in dispersed geographical locations which makes it difficult to collect accurate data.

With regard to the information management process, it is currently limited to gathering and aggregating the university's data and information by and large manually from the university's printers and other hard copy sources. There is some evidence of the use of e-business applications such as MS WORD, Excel and PowerPoint, which are used for electronic data preparation and saved onto hard drives, and there is also some use of the web development software CMS, available as an open source product. There is now a team of five staff working on these tasks and supporting the university networks and hardware. However, these employees' qualifications and capability levels are relatively low, which restricts their ability to deal with complex problems in information systems. The university's current systems were all developed outside the university, except the employee and staff records system, which was developed in-house by the IT department. The university website is rudimentary and does not have accurate data or provide reliable communication, and there is no integration with (or between) the university's internal systems.

Within the teaching and learning process, which includes both undergraduate and postgraduate study, the Engineering College and Information Technology College both provide teaching and research in computing and IT. In these colleges, there is some evidence of e-business deployment in the classroom, with computers being used for projection of lecture material (in MS WORD or PowerPoint) via data projectors. However, the teaching and learning processes and activities in the rest of the university exhibit very little use of e-business technologies, with no use of the internet in the classroom. There are no online course materials or lectures that can be accessed 24 hours a day, 7 days a week. An e-business strategy needs to be developed for teaching and learning to usher in computer-based and on-line learning services and the sharing of resources. There is a basic library website, but access to learning resources is still mainly reliant on printed books and other materials in local university libraries.

## ANALYSIS

### *Towards a new conceptual model for e-business deployment in Libyan universities*

We will now assess if and how some of the existing models and concepts can be used in the context of e-business in Libyan universities. Zuboff's model of automate-informate-transformate can be applied at the individual process level, and this shows Misurata University to arguably have most of its processes at the 'informate' stage, based in the main on the use of in-house systems allied to spreadsheets and word-processing packages (Figure 6). The estates planning and logistics management processes lag

behind with some automation but still a significant dependence on manual processes. Only the financial management process could be said to be at the 'transformate' stage, but this is questionable and relative to a very low level of computerization a decade ago.

Process	Automate	Informate	Transformate
<i>Teaching and learning</i>	MS. Access database and MS. Word, Excel spreadsheets are used for timetabling of lectures.	Basic information sharing use web-sites, and low level use of email communications ★	
<i>Human resources management</i>	In-house system developed in Delphi and VB/SQL from a third party vendor is used to support payroll & personnel management.	Electronic information available, and reports on staff absence, sickness, holidays, leave, etc. and pay/salary details. ★	
<i>Financial management</i>	Third party systems using VB/SQL, Delphi coding, MS. Access databases & Excel spreadsheets are used to manage both financial and management accounting activities.	System generated summary reports for payroll and salaries; it's available for managers and operators.	In 2014 Visa cards have become available to use for payment and purchase within the University. Possibilities of networking in-house systems with other relative systems inside the university. ★
<i>Student records management</i>	Use of three in-house systems designed by VB/Delphi. Basic level of a network link, and use of MS. Word and Excel for electronic data management.	Basic reports from in-house systems are available. Elementary website with a general information catalogue available to current and prospective students. ★	
<i>University information management</i>	In-house system locally designed in MS. Access. Use of MS. Excel and MS Word for electronic data management. Server available, but not in use.	Basic level of electronic information available. ★	
<i>Estate/ land and planning management</i>	Basic use of MS. Office applications, and AutoCAD. ★		
<i>Logistics &amp; services management</i>	Basic use of MS. Office applications		

Figure 6. *e-business deployment at process level in Misurata University (based on Zuboff's automate-informate-transformate)*

The DTI's CPIT model was designed in the years when e-business was closely linked to internet use, but it can still be of value by adapting it to accommodate the wider definition of e-business assumed in this research. It means that some of the stages need re-defining, notably 'publish' which now includes

display of information via standard information systems as well as on websites or via a web front-end or portal. The application of the CPIT model to Misurata university is shown in Figure 7, indicating that all processes, with the exception of estates planning and management, are at the publish stage at least, with financial management, student records management and human resources management being further advanced.

Process	Connect	Publish	Interact	Transform
<i>Teaching and learning</i>	Some computers available, existence of basic LAN. Use of MS. Word, Excel, and Access applications	Use of some Data-Show and smart boards for teaching purposes. ★		
<i>Financial management</i>	Existence of some computers and other hardware accessories uses for the preparation of certain electronic information. Use of MS. Word, Excel, and Access. Existence of reliable electricity network.	Computer generated hard copy reports available for key aspects of financial management from bespoke systems and office productivity tools.	Existence of basic LAN and four in-house systems (National number system, payroll system, a student's salary system, final account closure system). Level of user interaction is limited based on user authority and confidentiality of information. ★	<i>There has been significant change in technology deployment over the past decade and further significant change is feasible in the short to mid-term.</i>
<i>Students record management</i>	Office productivity tools are used, mainly in standalone mode.	Elementary information on university courses is published on university website. and there is a basic LAN but bespoke systems remain standalone.	In-house systems (registration, study& exams, and graduation systems) provide access to database information (read/write), and use of MS Excel and Access.. ★	
<i>University information management</i>	MS Access, Excel, Word are used for information collection and storage.	Reports are made available electronically via email. Servers available but no multi-user systems at present. ★		
<i>State/ land and planning management</i>	Use of AutoCAD software, MS. Word and Excel ★			
<i>Logistics &amp; services management</i>	MS Word, Excel available for basic applications.	Some data is published electronically via Excel spreadsheets. ★		
<i>Human resources management</i>	Office productivity tools are available on a range of computers.	Personnel information is available electronically within	In-house systems. (e.g. Personnel records system) are used interactively, but no LAN available. ★	

		the HR function.		
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Figure 7. *e-business deployment at process level in Misurata University (using the CPIT model)*

Nevertheless e-business deployment remains basic by western standards, with the university still struggling to install the required technology infrastructure, such as networks and internet connection. As a result, the in-house systems are isolated and online access to key information is limited to a few users.

The assessment at process level afforded by the application of the Zuboff and CPIT models is useful, but requires modification of the underlying concepts in both cases. Zuboff's original conception of automate-informate-transformate dates from the 1980s, when information technology was of a different era and the impact of technology on people was emphasised. Similarly, the concepts underlying the CPIT model reflect an understanding of e-business that is different to the broader definitions generally accepted today. A model better geared to the broader definition of e-business that also reflects the slower take-up of information technology in developing world countries like Libya is more appropriate.

The SCALE model has five stages. **Start** indicates a clear organizational structure, with clearly defined roles and procedures, and a general awareness of the availability of ICTs for day to day running of an organization, with possibly one or two individuals using standalone technologies (e.g. a laptop or mobile phone/iPad). At the **Connect** stage, there is an electricity network widely available and some internet connectivity allowing access to websites and inter-organization email exchange, a partial in-house data communications network facilitating multi-point access, and a few standalone users of basic office systems (e.g. a word processor or spreadsheet). At the **Access** stage, there is a wider take-up of office systems and use of some information systems for recording, processing and reporting information in key process functions. These systems are often built in-house by end-users or via third party programmers. The first servers appear allowing access to systems and applications from the organisation's network. Once most processes are at this stage, a central IT/IS department normally is put in place to manage the infrastructure and systems. The organization will normally have a website at this stage, which includes information on products and services, although there is probably no ability to take transactions via the website. **Leverage** indicates an established level of e-business systems deployment in most process areas, with some basic cross-organisational standards being introduced for IT/IS products and services, and procedures for things like backup and upgrades are defined. There is a degree of process change at this stage, as new systems require and allow process improvements. Website content becomes more advanced, being used by internal staff as an intranet and transactions are taken via the website where appropriate to the type of organization. **Enterprise** level is attained when systems are in place in all main process areas, either using a range of integrated packages or in-

house developments, or possibly an ERP integrated package. At this stage the end-user community includes information specialists. Processes are improved and streamlined and are reliant on a range of multi-user systems or modules accessing centrally held databases. The majority of corporate systems are accessible via the intranet or web portal, for both internal and external users, customers and business partners.

Learning & Teaching					
Student Records Management					
Financial Management					
HR Management					
Logistics Management					
Information Management					
Estates Planning and Management					
	Start	Connect	Access	Leverage	Enterprise

Figure 8. *E-business deployment assessment at the process level in Misurata University using SCALE model*

The application of the SCALE model at Misurata university is shown in Figure 8, with only the financial management process being at Leverage stage. The model allows greater differentiation of the other processes, with human resource management and student records management at the Access stage, and all others at the Start or Connect stages. This model can be used to help identify the hurdles that have to be jumped in each process area to facilitate advancement up the SCALE model. While there is evidence of awareness at senior management level of the importance of e-business systems, Misurata University faces a range of barriers to e-business deployment, which affect most process areas to some degree: (1) the lack of a clear business plan for the university that encompasses technology strategy, objectives and investment; (2) lack of consistent and standard administrative processes and procedures; (3) lack of basic network and internet connectivity; (4) lack of e-business skills and knowledge; (5) lack of training and development programs regarding e-business systems and technologies; (6) cultural resistance to change and a laissez-faire management attitude. In line with Heeks' model, these barriers are strongly linked to all four of his key elements, but particularly, process, technology and people issues.

## CONCLUDING REMARKS

There are some encouraging signs of change at Misurata University. Development of web-portal services is in progress in the student records management and teaching and learning processes, which

will widen access to existing systems as the basic network infrastructure is upgraded and extended. It is increasingly recognized by staff that new e-business systems are needed and that this affords the university an opportunity to move forward. What is now needed is a clear e-business strategy, aligned with the overall university business plan, with parallel programmes to upgrade skills and knowledge in the key process areas of the university. This must encompass the small IT department which needs to play a key role in the planning and delivery of new systems and technologies. This group already have some skills in web-site development and this is likely to be an important capability as attempts are made to provide a user friendly front-end to the range of systems currently in place, as a short to mid-term solution.

The use of the SCALE model has helped identify where progress has been made and where opportunities exist at individual process level, and this will now be further developed and applied in Misurata and a number of other Libyan universities. The results of this research will be fed into the future business planning and operational delivery of new e-business systems in the universities of Libya, linked to the Libyan government initiative to develop e-business infrastructure across its university campuses.

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## ON THE DEVELOPMENT OF THEORETICAL MODEL OF ANTECEDENTS AND OUTCOMES OF ORGANIZATIONAL E-HRM ADOPTION

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### ABSTRACT

With the advent of web based technology, HR service delivery has dramatically been changed and growing interest on the phenomenon of e-HRM emerged among academics and practitioners. Despite several theoretical and empirical studies have been conducted, we still know little about predictors and outcomes of organizational e-HRM adoption. Furthermore, extant literature is limited with the rigorous application of the theory in addressing e-HRM research questions. Thus, to address these gaps in the e-HRM literature, in this paper, we propose a theoretical model using three mainstream management theories namely diffusion of innovation theory, resource based theory and theory of planned behavior. Ten hypotheses were developed and the hypotheses need to be empirically tested. Finally, paper briefly discusses suggested research design for the empirical study with a discussion of limitations and potentials for future researches.

**Key words:** *e-HRM adoption, Innovation characteristics, Resources and capabilities, Technical HRM effectiveness, Strategic HRM effectiveness*

### INTRODUCTION

Since 1980s, organizations moved towards information technology (IT) based business process applications in order to reduce operational cost and to enhance effectiveness of the business process and practices (Heikkilä, 2013). However, compared to other business functions such as production and operation, marketing, accounting and finance, only human resource management (HRM) function taken relatively significant time to apply IT components (Ball, 2001). However, since the mid-1990s, organizations have increasingly introduced electronic human resource management (e-HRM) system (Bondarouk et al., 2009), which is generally referred to utilizing IT to provide HR services (Heikkilä and Smale, 2011).

More precisely, e-HRM is defined as “the planning, implementation and application of information technology for both networking and supporting at least two individuals or collective actors in their shared performing of HR activities” (Strohmeier, 2007 p.20). The adoption of e-HRM among US and European organizations has significantly increased over last decade (Florkowski and Olivas-Luján,

2006) and growth will continue in future (Bondarouk et al., 2009). Such growth and motivation towards e-HRM adoption is accelerated across organizations due to continuous pressure entrusted on the HR department to convince its contributions to the organization through maintaining efficiency and effectiveness of HRM service delivery.

In recent years, e-HRM phenomenon has been received a greater attention among academics due to its multidisciplinary nature that combine both HRM and IT (Heikkilä, 2013). However, theoretical and empirical research in the field of e-HRM is still at an early stage compared to general IT and strategy literature (Marler and Fisher, 2013). Consequently, there exist several areas that should be further extended on one hand, and several unexplored areas which have not yet been addressed on the other hand.

First, antecedents of organizational e-HRM adoption are not well studied and findings of these studies are inconsistent (Strohmeier and Kabst, 2009). Previous studies on antecedents of organizational e-HRM adoption can be categorized in to two based on the types of e-HRM system considered and types of antecedents/factors included. With respect to types of e-HRM system, several empirical studies have been examined organizational adoption of specific functional subset of e-HRM, for instance e-recruiting (Keim and Weitzel, 2009), e-learning (Martin and Jennings, 2002) while few studies investigate the organizational adoption of general e-HRM (Lau and Hooper, 2008, Strohmeier and Kabst, 2009). However, the findings of these studies are rather scattered and inconsistent and organization size only provides consistent result in terms of organizational adoption (Ball, 2001, Florkowski and Olivas-Luján, 2006, Hausdorf, 2004, Teo et al., 2007). With respect to types of antecedents of e-HRM adoption, Strohmeier and Kabst (2009) empirically investigate the effect of general factors (organizational size, industry, and demography of an organization, employment structure and configuration of HRM) and contextual factors (national business system) of e-HRM adoption. However, no studies in the literature are applied characteristics of e-HRM system for instance innovation characteristics (relative advantage, complexity, compatibility, observability and trialability) suggested by Diffusion of Innovation theory (Rogers, 2003) as antecedents of predicting organizational e-HRM adoption decision.

Second, outcomes of the e-HRM adoption are understudied and findings are rather inconclusive (Marler and Fisher, 2013). Organizations mainly expect to achieve three outcomes in e-HRM adoption: (1) cost reduction/efficiency gains, (2) client service improvement/effectiveness of HRM service delivery and (3) improving strategic orientation of HRM (Marler, 2009, Ruël et al., 2004). As far as the previous studies of outcomes of the organizational e-HRM adoption are concerned, it can mainly be classified in to three types: (1) individual level outcomes, (2) HR department level outcomes

and (3) overall organizational level outcomes. Equal number of attention in the literature has been paid for these three types of outcomes. Most widely addressed individual level outcomes consist of organizational commitment, perceived procedural and distributive justice, intention to quit, job satisfaction (Imperatori and Bissola, 2010), professional competence in HRM (Bell et al., 2006), internal customer satisfaction (Alleyne et al., 2007). It is apparent that due to e-HRM adoption HRM department is subjected to change and in turn benefited in a certain ways. Thus, previous studies addressed several HR departmental level outcomes such as HRM value creation (Ruël and van der Kaap, 2012), HRM effectiveness (Haines and Lafleur, 2008, Ruel et al., 2007), value of HR function (Parry, 2011), transformation of in the role of HR function (Panayotopoulou et al., 2007). Finally, at the organizational level following outcome variables have been widely considered: organizational image, improving efficiency, standardization (Parry and Tyson, 2011), strategic decision making, talent management (Bondarouk and Ruël, 2013), cost reduction, new structure, quality improvement, strategic contribution (Farndale et al., 2009), reduction in administrative costs (Marler, 2009). Despite growing interest in outcomes of e-HRM adoption exist, previous studies failed to find consistent results with respect to outcomes of e-HRM adoption. For instance Haines and Lafleur (2008) found positive association among degree of IT enabled HR practices and perceived HR strategic effectiveness and quality of strategic and change agent HR roles. However, (Tansley et al., 2001) failed to find such relationship between implementation of IT supported HR practices and HR specialists value addition to the business. Consequently, as previous studies have been provided mix results in the relationship between e-HRM adoption and its outcome, further research are warranted.

Third, extant literature is limited with the rigorous application of the theory in addressing e-HRM research questions (Bondarouk and Ruël, 2013, Strohmeier, 2007). Further, most of the previous studies are exploratory in nature where specific theoretical foundations are lacking to guide the research (Marler and Fisher, 2013). Reviewing previous research in e-HRM and emphasizing non-theoretical character of existing literature, (Strohmeier, 2007) suggest resource based view, transaction cost theory and institutional theory as the three potential theories that can be applied in addressing e-HRM research question. However, e-HRM research is silent in this issue and only one study (Parry, 2011) applied resource based view to examine the potential use of e-HRM as a means to increase the value of the human resources function. Thus, “we need a stronger theoretical foundation for e-HRM research in general to help make sense of the literature, strengthen the research conducted, and facilitate effective accumulation of knowledge” (Marler and Fisher, 2013 p.34)

Positioning with the research gap in the literature discussed above, the prime objective of this paper is to make a contribution to extant literature of this multidisciplinary field, by developing a theoretical

model on antecedents and outcomes of organizational e-HRM adoption. In response to the existing gap in the literature, this paper aims to propose a theoretical model to address following research questions.

1. To which extent innovation characteristics influence on organizational intention to e-HRM adoption?
2. To which extent organizational intention to e-HRM adoption influence to e-HRM adoption?
3. To which extent organizational resource and capabilities moderate the organizational e-HRM adoption?
4. To which extent e-HRM adoption influence on HRM effectiveness?

The remainder of the paper is organized as follows. First, key concepts of e-HRM and e-HRM adoption are discussed. Second, core elements of the three theories applied in the study (diffusion of innovation theory, theory of planned behavior and resource based theory) are discussed. Third, theoretical model is explained along with hypothesis. Fourth, suggested research design is discussed with a discussion of potential of future research and limitations.

## LITERATURE REVIEW

### *Defining e-HRM*

Utilizing IT to provide employees with HR services is generally treated as e-HRM (Heikkilä and Smale, 2011)). Before conceptualizing term “e-HRM”, it is important to review the similar terminology that has been used interchangeably with e-HRM in previous studies. These terms include; virtual HRM (Lepak and Snell, 1998)), web-based HRM (Ruël et al., 2004), Intranet-based HRM (Bondarouk et al., 2009), Business to employee (B2E) systems(Huang et al., 2004). Definition of e-HRM has been evolved over decades. Table 1 summarizes the available definition of the e-HRM literature along with the criticisms against for each definition.

Definition	Author	Weakness
“Conducting HR transactions using the internet or intranet”	(Lengnick-Hall and Moritz, 2003 p.365)	This definition considers only value created by e-HRM with respect to improvement of the administrative HR process. Thus, the definition ignores the transformational outcomes of e-HRM. ((Bondarouk and Ruël, 2009)
“A way of implementing HRM strategies, policies, and practices in organizations through the conscious and direct support of and/or with the full use of channels based on web-technology”	(Ruël et al., 2004 p.16)	This definition does not consider about the consequences of e-HRM. Thus, researchers who applied this definition may confront with challenges of measuring consequences of e-HRM. (Bondarouk and Ruël, 2009)

“(Planning, implementation and) application of information technology for both networking and supporting at least two individual or collective actors in their shared performing of HR activities”	(Strohmeier, 2007 p.20)	In a context, where e-HRM applications offer only administrative facility and do not support for the networking people, applying this definition is difficult. (Bondarouk and Ruël, 2009)  This definition does not include international dimension (Heikkilä, 2013)
“An umbrella term covering all possible integration mechanisms and contents between HRM and information technologies aiming at creating value within and across organizations for targeted employees and management”	(Bondarouk and Ruël, 2009 p.507)	The terms used in the definition “umbrella” and “across organizations” indicate e-HRM as a too broad phenomenon lacking a clear explanation of the any particular process such as planning or implementation (Heikkilä, 2013).

Table 1: *Evolution of e-HRM definitions*

As per the Table 1, it can be concluded that the definition of e-HRM is subjected to several changes over time and there is no universally accepted definition of e-HRM. However, the definitions that are recently suggested by (Strohmeier, 2007) and (Bondarouk and Ruël, 2009) provide clear conceptualization of the terminology and most widely used in the e-HRM literature. For this study, we position with (Strohmeier, 2007) definition as it covers mostly the essential components of the e-HRM listed below.

1. e-HRM utilizes information technology (IT) for both “networking and supporting”. Networking refers to connect individuals (HR personal, line managers and employees etc) who have been spread virtually within and across organizations. Supporting involves with helping individuals to accomplish HR activities.
2. Incorporating the term “planning”, definition considers the systematic means of utilizing IT to execute HR activities
3. “Shared performing of HR activities” emphasize that interaction and networking among individuals
4. “Collective actors” indicate that e-HRM is a multilevel phenomenon. In addition to, HR personal, line managers and individual employee, there are collective actors like organizational units, whole organization that interact with accomplishing HR activities (Heikkilä, 2013).

### ***e-HRM Adoption***

Since e-HRM studies exist at early stage (Marler and Fisher, 2013), and e-HRM is closely linked with information communication technology and innovation (Ruël et al., 2004), most of the e-HRM studies

depend on IT and innovation adoption literature. Thus, according to information technology and innovation literature, technology adoption is considered as multilevel phenomenon and basically it classifies in to two pillars: *individual and organizational level* (Jeyaraj et al., 2006). Individual level adoption refers to the adoption of IT based innovations by individuals while organizational adoption denotes the adoption of IT based innovations by organization or organizational units such as particular department/section (Jeyaraj et al., 2006). Since e-HRM encompasses with IT components to deliver HR services (Ruël et al., 2004, Strohmeier, 2007), e-HRM adoption resemblance to the technology adoption. Thus, (Strohmeier and Kabst, 2009) contend that *organizational adoption of e-HRM* involve with the process of initiating and implementing IT for the purpose of facilitating various actors (HR professional, line managers and employees) in their shared performing of HR tasks. Given these factors, this study considers on organizational adoption of e-HRM that lead to facilitate efficient and effective delivery of HR service.

#### ***Goals of e-HRM Adoption:***

In responding to the pressures directed towards HR department, organizations tend to introduce e-HRM system mainly to accomplish three goals: (1) cost reduction/efficiency gains, (2) effective HRM servicedelivery and (3) improving strategic orientation of HRM (Marler, 2009, Ruël et al., 2004). Consistent with these goals, extant literature in e-HRM suggest that e-HRM provides HR managers with opportunities to collect, store and analyze workforce data to make strategic decisions (Gupta and Saxena, 2013), cost reduction (Ruël et al., 2004), delegate routine administrative roles to line managers and employees (Bondarouk and Ruël, 2013) and spend more time with strategic HR activities such as talent management, strategic compensation management, organizational change and development (Parry and Tyson, 2011). However, Marler and Fisher (2013) reviewing 40 studies of e-HRM suggest that no consistent empirical evidence available to support the relationship between e-HRM adoption and such strategic outcomes that organizational performance, competitive advantage, HRM outcomes. Therefore, since organizations invest significant amount of money on e-HRM adoption there is a growing need to provide empirical evidence on outcomes of the e-HRM usage.

## **THEORY**

With the background information about e-HRM phenomenon, provided in the previous section, preceding section discuss the theoretical background of the research along with the theoretical model and hypothesis.

#### ***Diffusion of Innovation Theory***

An Innovation defines in the innovation literatures in different ways. Zaltman et al. (1973) define an innovation as being any idea, practice or material artifact perceived to be new by the relevant unit of

adoption. Further, (Kanter, 1985) define an innovation as “the generation, acceptance and implementation of new ideas, processes, products or services”. Several authors (Florkowski and Olivas-Luján, 2006, Shrivastava and Shaw, 2003) view that installation of HR technology as a form of innovation. More specifically, Ruël et al. (2004) and Panayotopoulou et al. (2010) argue that e-HRM can be treated as an innovation in terms of HRM due to two main reasons. First, e-HRM creates opportunity to position employee-management relations in the hands of employees and line managers and second, e-HRM offer opportunities to design HRM tools and instruments that would not be possible without IT. Thus, positioning with this argument, for this study we view e-HRM as an innovation.

Diffusion of innovation theory explains how, why and at what rate new ideas, products or practices spread (Rogers, 2003). However, for the present study researcher considers only why innovation is adopted by organizations. With innovation diffusion theory, (Rogers, 2003), suggest five generic characteristics of the innovation that influences on individual or organizational adoption decision. These five factors include: (1) relative advantage, (2) compatibility, (3) complexity, (4) trialability, (5) observability. The explanations of these five innovation characteristics are illustrated in Table 2.

Innovation attributes	Definition	Reference
Relative advantage	“The degree to which an innovation is perceived as being better than the idea it supersedes”	(Rogers, 2003 p.229)
Complexity	“The degree to which an innovation is perceived as relatively difficult to understand and use”	(Rogers, 2003 p.257)
Compatibility	“The degree to which an innovation is perceived as consistent with the existing values, past experiences, and needs of potential adopters”	(Rogers, 2003 p.240)
Trailbilty	“The degree to which an innovation may be experimented with on a limited basis”	(Rogers, 2003 p.258)
Observability	“The degree to which the results of an innovation are visible to others”	(Rogers, 2003 p.258)

Table 2: *Characteristics of Innovation*

Diffusion of innovation theory has been applied in several other field of study such as information systems (Grover et al., 1997), marketing (Mahajan et al., 1990), and e-commerce (Eastin, 2002), and has been validated the foresaid innovation attributes (Sonnenwald et al., 2001). However, since technology related innovation adoption in HRM such as e-HRM commence relatively late to the other functional areas of the organizations (Ball, 2001, Parry, 2011, Ruël et al., 2004), no research have been applied diffusion of innovation theory in predictingorganizational e-HRM adoption. Several studies in HRM disciplinehave been applied innovation diffusion theory particularly to explore online recruitment adoption, (Parry and Wilson, 2009), Human resource information system (HRIS) adoption (Teo et al., 2007). However no studies up to date apply diffusion of innovation theory in explaining the variance



of organizational e-HRM adoption. Thus, this study assuming e-HRM as an innovation, aims to explore to which extent innovation attributes determine organizational intention to e-HRM adoption using diffusion of innovation theory.

### ***Theory of Planned Behavior***

This study also applies the well-known theoretical framework of theory of planned behavior (TPB) that is introduced by Ajzen (1991). TPB has been applied in several disciplines including marketing (Wang et al., 2006), Information systems (Venkatesh et al., 2003). Particularly, TPB has also been applied to investigate the technology adoption intention and behavior (Taylor and Todd, 1995). TPB describes the relationship between attitudes, norms and controls as the determinants of intentions and behavior. TPB suggest that intention leads to perform a particular behavior of interest. Positioning with this arguments, this study apply TPB to test the relationship between organizational intention to e-HRM adoption (intention) and actual e-HRM adoption (behavior).

### ***Resource Based Theory (RBT)***

RBT of the firm build on two assumptions. First, organizations are heterogeneous in terms of the resources they controlled and second, these resources might not be perfectly mobile (Barney, 1991). Further RBT acknowledge that organizational resources play key role in attaining competitive edge over rivalry. However, in accordance with the RBT, all the resource is not leading to sustainable competitive advantage and only valuable, rare, inimitable and non-substitutable resources enable to attain sustainable competitive advantage (Barney, 1991).

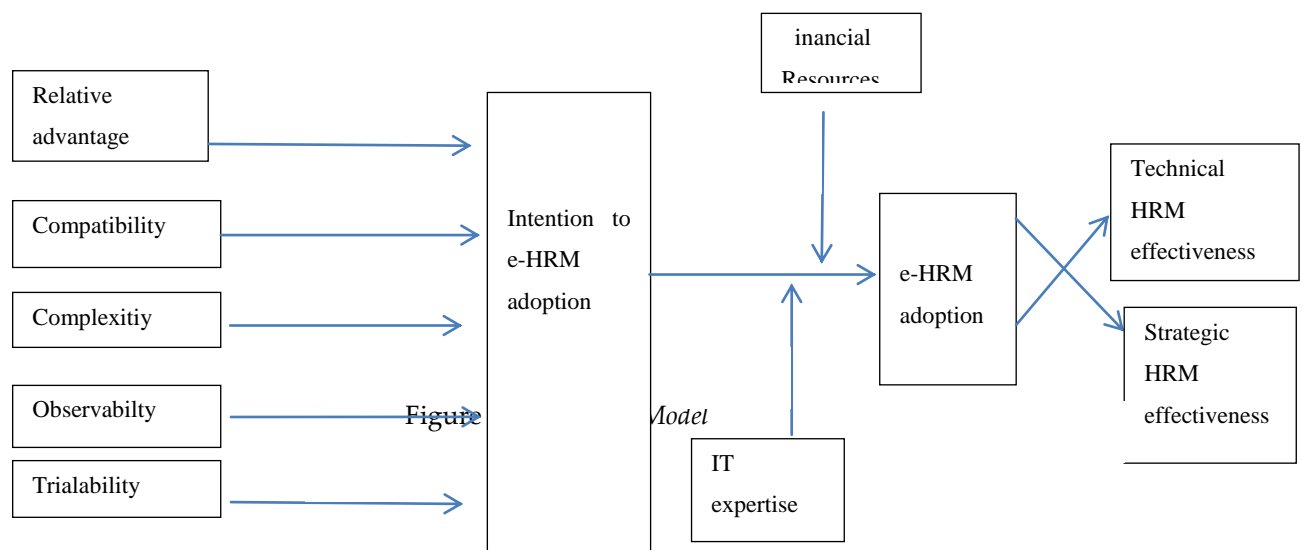
As the main focus of the resource based theory is on organizational resources and capabilities it is first essential to clearly define resources and capabilities of the firm and its boundaries. Firm resources refer to strengths that firm can use to conceive of and implement their strategies (Porter, 1981). Further (Barney, 1991)define resource as all assets, capabilities, organizational processes, firm attributes, information, knowledge, etc. controlled by a firm that enable the firm to conceive of and implement strategies that improve its efficiency and effectiveness. Different authors classify resources differently and Barney (1991) categorizes resources as *physical capital resources*, *human capital resources* and *organizational capital resources*. Technology used, plant and equipment, firms' geographic location, access to raw materials is considered as the physical capital resources. Human capital resource consist of the training, experience, judgment, intelligence, relationships and insight of individual managers and workers in a firm where as organizational capital resources include formal reporting structure, formal and informal planning, controlling, and coordinating systems and informal relationships among groups within a firm and its environment (Barney, 1991). In contrast, Chatterjee and Wernerfelt (1991) classify resources in to three pillars: (1) physical, (2) intangible and (3) financial. Further, Grant (1991) provide six types of organizational resources: (1) financial (2) physical, (3)

human resources, (4) technological, (5) reputation and (6) organizational assets. These classifications confirm that concept of resource and capabilities and its boundaries are not vibrant. Unclear typology of the concepts of resource and capabilities is due to the wide range of application of the resource based theory (Andersen and Kheam, 1998).

RBT is applied to explain and predict the differences in strategic choices and performance. Several studies (Andersen and Kheam, 1998, Chatterjee and Wernerfelt, 1991) have been applied RBT in predicting strategic choice decision in organization. This study, assuming e-HRM adoption as strategic choice of organization, investigates the moderating role of resources and capabilities in the relationship between intention and actual e-HRM adoption.

## THEORETICAL MODEL AND HYPOTHESIS

A brief review of the literature and theoretical background provides the necessary foundation for the research model. Figure 1 depicts the theoretical model followed by hypothesis.



## INNOVATION CHARACTERISTICS AND ORGANIZATIONAL E-HRM ADOPTION:

### *Relative advantage*

Relative advantage refers to the degree to which an innovation is perceived as being better than the idea or artifact it supersedes (Rogers, 2003). In accordance with Diffusion of innovation theory, when innovation's relative advantage is higher, individuals are more likely to adopt it (Rogers, 2003). Organizations generally intend to adopt innovations mainly to overcome performance gaps and deficiencies or to exploit new opportunities (Premkumar and Potter, 1995). Applying this to the e-HRM, previous study suggest that organization move towards e-HRM instead of conventional HRM

service delivery, in order to improve the strategic orientation of HRM (Ruël et al., 2004), increase efficiency/cost reduction (Lepak and Snell, 1998), improve client service (Ruël et al., 2004). Thus, due to e-HRM adoption organizations enable to enhance effectiveness of the HRM department through automating administrative tasks (Ensher et al., 2002), reducing paper work (Ruël et al., 2004), simplifying work process (Teo et al., 2007). Moreover, supporting to strategic decision making with updated information (Bondarouk and Ruël, 2009, Parry and Tyson, 2011), freeing HR staff from administrative burdens (Martin et al., 2008) are some of other relative advantage associated with e-HRM. Thus, this leads to following hypotheses.

*H1: relative advantage of e-HRM system is positively related to the organizational intention to e-HRM adoption*

## COMPATIBILITY

Compatibility of innovation refers to the degree to which innovation is perceived as being consistent with the existing values, past experience and needs of the potential adopter (Rogers, 2003). Innovation diffusion theory suggest that higher the perceived compatibility of innovation, more likely to adopt into innovation (Rogers, 2003). Previous studies in innovation adoption (Toranatzky and Klein, 1982) IT adoption (Cooper and Zmud, 1990) and HRIS adoption (Teo et al., 2007) found compatibility as the important variable to explain the variance of intention to use or adoption. Two types of compatibility/validity that is organizational and technical are required to be met in case of technology adoption (Schultz and Slevin, 1975). Organizational compatibility is generally assessed through the congruence between innovation and existing attitudes, beliefs and value systems. Subsequently, technical compatibility is evaluated by means of assessing match between innovations with existing systems (Premkumar and Potter, 1995). Due to e-HRM adoption work practices, culture, communication system and organizational structure are subjected to change as it is related to the information technology components (Marler, 2009, Strohmeier, 2007). Thus, these changes may leads to resistance to change where alternative coping strategies are required to implement to make aware individuals (Wickramasinghe, 2010). This confirms the notion that it is difficult to meet perfect degree of compatibility in any kind of innovation adoption. However, when e-HRM is organizationally and technically highly compatible, organizations are more likely to adopt e-HRM. Given these factors it is reasonable to claim following.

*H2: Compatibility of e-HRM system is positively related to the organizational intention to e-HRM adoption*

## Complexity

Complexity refers to the degree to which an innovation is perceived as relatively difficult to understand and use (Rogers, 2003). Innovation diffusion theory acknowledges that when complexity

of innovation is higher, individual or organization are less likely to adopt into innovation. Premkumar and Potter (1995) argue that, though innovation itself may appear to be worthwhile, in contrast organization may find several complexities of using it. Since difficulty of some non-technical professionals to understand and use the IT related HR innovations many organizations take relatively considerable time to adopt such innovative system (Dunivan, 1991). Thus, when it comes to e-HRM, due to e-HRM adoption role of the HR professionals, line managers and other employees are subjected to change as additional task, duties and responsibilities may add while existing ones are removed (Ensher et al., 2002). However, when the perceived complexities of e-HRM system remain lower, organizations are more likely to adopt e-HRM systems. Thus, this leads to following hypotheses.

*H3: Complexity of e-HRM system is negatively related to the organizational intention to e-HRM adoption*

### ***Observability***

Observability is the degree to which the results of the innovation are easily seen and understood (Rogers, 2003). Innovation diffusion theory suggests that higher the visibility of the results of adopting innovation, individuals and organizations are more likely adopt. Organization enable to achieve number of positive results such as cost reduction, increased effectiveness (Ruël et al., 2004), automating administrative tasks (Ensher et al., 2002, Parry, 2011), simplifying work process (Teo et al., 2007). When organizations enable to observe the results of the e-HRM system either internal or external to the organization, it may encourage them to adoption in to e-HRM system. Thus, this leads to following hypotheses.

*H4: Observability of e-HRM system is positively related to the organizational intention to e-HRM adoption*

### ***Trialability***

Trialability refers to the degree to which an innovation may be experimented with on a limited basis (Rogers, 2003). Individuals are willing to experiment innovative products, services or ideas before actually adapt in to them (Agarwal and Prasad, 1997). With these experiments they enable to gain initial idea about the products or service along with its advantage and disadvantages. Consistent with this argument we believe that organizations are more likely to implement e-HRM systems when they have adequate opportunity to experiment the e-HRM system. It helps them to get initial understanding of the e-HRM system and to make initial evaluation of its positive and negative features. Thus, we hypothesize that,

*H5: Trialability of e-HRM system is positively related to the organizational intention to e-HRM adoption*

***Intention to e-HRM adoption and e-HRM adoption***

Theory of planned behavior (Ajzen, 1991) suggests that intention leads to actual behavior. When organization perceives that (1) e-HRM adoption would enable to gain favorable results over traditional labor intensive HRM system, (2) e-HRM system is organizationally and technically compatible with existing values, (3) e-HRM system is not difficult to use and understand (4) organization have opportunity to experiment e-HRM system and (5) organizations could easily be seen and understand the results of the e-HRM system, firms are more likely to decide to actual implementation of the e-HRM system in organization. Thus, applying the theory of planned behavior to the research model, it can be argued that organizational intention to e-HRM adoption leads to actual e-HRM adoption decision. This leads to following hypothesis.

*H6: organizational intention to e-HRM adoption is positively related to e-HRM adoption*

***Financial resources***

Resources vary in terms of their flexibility. Financial resources are the most flexible organizational resources over others as ability to buy all other productive resources depend on financial resources (Chatterjee and Wernerfelt, 1991). Financial resources generally classifies into two classes: internal funds and external funds (Chatterjee and Wernerfelt, 1991). Internal funds comprise with liquidity at hand and unused debt capacity to borrow at normal rates whereas external funds encompass new equity and possibly high risk debts. As discussed earlier in the theoretical background section, RBT have been applied in predicting organizational strategic choice decision particularly in the context of diversification strategy (Chatterjee and Wernerfelt, 1991) and international growth strategies (Andersen and Kheam, 1998). With these studies, more specifically, (Chatterjee and Wernerfelt, 1991) found that financial resources are significantly associated with the intended and implemented strategy.

Intention to e-HRM adoption is a key strategic consideration of an organization as e-HRM usage is positively related to HRM value creation (Ruël and van der Kaap, 2012). Even though e-HRM enables to generate value over the traditional HRM system, intention to e-HRM adoption is hindered by the availability of internal or external financial resources. This is due to the fact that organizations are required to incur significant amount of financial resources in IT related (e-HRM) investment or adoption (Molla and Licker, 2005). This means that even though organizations perceive that e-HRM system generate positive outcomes, their decision to e-HRM adoption is moderated by the availability of financial resources. This leads to following hypotheses.

*H7: The relationship between intention to e-HRM adoption and e-HRM adoption is positively moderated by availability of financial resources*

***IT expertise***

In line with RBT, (Barney, 1991) suggests that human capital resource is one of vital organizational resources that consist of training, experience, judgment, intelligence and insight of individual managers and workers in a firm. In accordance with this classification, organizational members' (Managers and employees) IT expertise can be considered as the human capital resources of an organization. IT expertise is one of key determinants of the IT related innovation adoption (Kwon and Zmud, 1987, Teo et al., 2007). This means that when organizational members are well equipped with appropriate IT related knowledge and experience, organizations are more likely to adapt in to IT applications. Confirming this notion, (Premkumar and Potter, 1995) observed that firms with higher IT expertise are more likely to adopt IT related applications. Since, e-HRM is considered as IT related innovation in terms of HRM (Ruël et al., 2004), we expect that organizational members' IT expertise influence on e-HRM adoption decision.

*H8: The relationship between intention to e-HRM adoption and e-HRM adoption is positively moderated by organizational members' IT expertise*

***Technical and strategic HRM effectiveness***

Huselid et al. (1997) introduced the concepts of HRM effectiveness with the view that organizations seek approval for their HRM activities in a socially constructed environment. HRM effectiveness refers to the delivery of high quality technical and strategic HRM activities (Huselid et al., 1997). With this definition it can be concluded that HRM effectiveness is twofold: technical and strategic. Technical HRM effectiveness refers to the perceptions of how well the HRM function performed activities traditionally associated with personnel management including recruitment, selection, training, performance appraisal and compensation and administration (Huselid et al., 1997). On the other hand strategic HRM effectiveness refers to perceptions of how well the HRM function developed a firm's employees to support its business needs (Huselid et al., 1997).

According to RBT (Barney, 1991) resources categorize as physical capital resources, human capital resources and organizational capital resources and organizational capital resources include formal reporting structure, formal and informal planning, controlling, and coordinating systems and informal relationships among groups within a firm and its environment. In accordance with this e-HRM system can be treated as one of innovative organizational capital resource as e-HRM system is treated as formal planning, controlling and coordinating system in organization. RBT suggest that valuable, rare, inimitable and organizational resources and capabilities lead to gain sustainable competitive advantage (Barney, 1991). With e-HRM adoption, firms' HRM functions tend to move from labor intensive to technology intensive service delivery (Marler and Fisher, 2013, Strohmeier,

2007). With this transition firms mainly expect to enhance the effectiveness of the HRM service delivery (Ruël et al., 2004). Due to e-HRM adoption firms enable to achieve improvements in the speed and quality of HR services (Olivas-Lujan et al., 2007) manage vast amount of information with great speed and accuracy (Haines and Lafleur, 2008), improve decision making speed, quality and accuracy (Parry, 2011). However, relationship between e-HRM system adoption and HRM effectiveness is not well established in the literature. Positioning in the RBT, we assume that execution of technical HRM activities such as recruiting, selection, performance measurement and training would be strengthened and organization enable to achieve higher degree of technical HRM effectiveness. Moreover, we hypothesize that implementation of strategic HRM activities such as flexible workforces, quality improvement practices, and employee empowerment would be relatively easy with e-HRM adoption and in turn organization would achieve greater degree of strategic HRM effectiveness. This leads to following hypothesis.

*H9: Organizational e-HRM adoption is positively related to technical HRM effectiveness*

*H10: Organizational le-HRM adoption is positively related to strategic HRM effectiveness*

## RESEARCH SETTING AND DATA COLLECTION

The focus of this research is to explore the antecedents and outcomes (more specifically HRM effectiveness) of organizational e-HRM adoption. This research is to be conducted in the developing country context as many organizations in developed country have been already implemented e-HRM system, it is also important to investigate this phenomenon in developing country context. It is apparent that when adopting IT related applications (eg: e-HRM), firms in developing countries confront with challenges relatively different from those in developed countries. First, firms in developed countries enjoyed with a well-developed, accessible and affordable infrastructure, whereas in most of the developing countries' IT related adoption has been constrained by the quality, availability, and cost of accessing such infrastructure (Humphrey et al., 2003). Second, low level of information and communication technological awareness of individuals impedes the IT related adoption among firms in developing countries (Molla and Licker, 2005). Third, many of the developing countries have a low level of trust on IT related adoptions (Oxley and Yeung, 2001). Fourth, since most of the firms in developing countries are small, IT related adoption has been constrained by the lack of adequate resource (Goode and Stevens, 2000). Fifth, implantation of IT related practices particularly e-HRM, requires major reorganization of HR activities and related responsibilities (Strohmeier, 2007). However, most of the firms in developing countries have a highly centralized structure (De Vreede et al., 1998). Thus, perception of managers towards IT related

adoption plays a crucial role in the developing countries. Thus, it is an important to explore more precisely, the phenomenon of e-HRM adoption in developing countries.

Sri Lanka is selected as the research setting where Gross Domestic Product is US\$59 billion and per capita income US\$2,877 (IMF, 2012). Moreover, researcher expects to take in to account only private sector firms that use e-HRM to deliver HR services as majority of public sector firms have not yet adopted e-HRM application. Data will be collected through large scale survey using self-administered questionnaire. Variables of the research model are operationalized using previously tested scale with slight modifications so as to fit with the e-HRM adoption context. Table 3 illustrates the operationalization of variables with sample items.

Variable	Items	References
Relative advantage	<ol style="list-style-type: none"> <li>1. Using e-HRM system enable our organization to accomplish tasks more quickly</li> <li>2. e-HRM system will provide timely information for decision making</li> </ol>	(Moore and Benbasat, 1991)
Compatibility	<ol style="list-style-type: none"> <li>1. using e-HRM system is compatible with all aspects of our business transactions</li> <li>2. adoption of e-HRM system is consistent with our organization's values and beliefs</li> </ol>	(Moore and Benbasat, 1991) (Teo et al., 2007)
Complexity	<ol style="list-style-type: none"> <li>1. Using e-HRM system requires a lot of mental effort</li> <li>2. Using e-HRM system is often frustrating</li> <li>3. Learning to operate e-HRM system is easy</li> </ol>	(Moore and Benbasat, 1991)
Observability	<ol style="list-style-type: none"> <li>1. I have seen what others do using e-HRM system</li> <li>2. I have seen e-HRM system in use outside my organization</li> </ol>	(Moore and Benbasat, 1991)
Trialability	<ol style="list-style-type: none"> <li>1. Our organization have had great deal of opportunity to try various e-HRM application</li> <li>2. Before deciding whether to use e-HRM system, our organization was able to properly try them out</li> </ol>	(Moore and Benbasat, 1991)
Intention to adopt	<ol style="list-style-type: none"> <li>1. I will be interested in continuing to use e-HRM system in our organization</li> <li>2. I will arrange to permanently adopt e-HRM system as soon as possible</li> </ol>	(Plouffe et al., 2001)
e-HRM adoption	<p>Indicate that extent to which your organization adopted/implemented following e-HRM system for delivering HR services:</p> <ol style="list-style-type: none"> <li>1. Teleworking</li> <li>2. Online conferences</li> <li>3. Intranet with generic HR information</li> </ol>	(Bissola and Imperatori, 2013)



	4. Online information about health	
IT expertise	<ol style="list-style-type: none"> <li>1. All employees are computer literate</li> <li>2. There is at least one computer expert in the each sections of the organization</li> </ol>	(Thong, 1999)
Financial resources availability	<ol style="list-style-type: none"> <li>1. Our organization has adequate cash flow to invest in e-HRM implementation</li> <li>2. Our organization has financial resources to buy required hard ware and software with respect to e-HRM adoption</li> </ol>	Self-created
Technical HRM effectiveness	<p>How satisfied with the results currently being achieved:</p> <ol style="list-style-type: none"> <li>1. Benefits and services</li> <li>2. Compensation</li> <li>3. Recruiting &amp; training</li> </ol>	(Huselid et al., 1997)
Strategic HRM effectiveness	<p>How satisfied with the results currently being achieved:</p> <ol style="list-style-type: none"> <li>1. Teamwork</li> <li>2. Employee participation and empowerment</li> <li>3. Workforce planning-flexibility and deployment</li> </ol>	(Huselid et al., 1997)

Table 3: *Operationalization of Variables*

## CONCLUSION

Though many firms worldwide adopt into e-HRM during past decade, relatively very little we know about the antecedents and outcomes of e-HRM adoption. Moreover, extant literature is limited with the rigorous application of theory. Thus, with this paper, we expect to make theoretical contribution by proposing a theoretical model to explore the antecedents (innovation characteristics and organizational resources) and outcomes of organizational e-HRM adoption (HRM effectiveness) using three main stream management theories: Diffusion of innovation theory, Resource based theory and Theory of planned behavior. However, the theoretical model needs to be empirically tested to prove the hypothesis.

Our model is not without limitations. We consider only innovation characteristics suggested by diffusion of innovation theory as the antecedents of organizational e-HRM adoption. However, there might be other important factors that drive organization towards implementation of e-HRM system. Moreover, positioning with resource based theory we take in to account only two types of organizational resources that is availability of financial resources and IT expertise as the moderating variables. However, there might have some other organizational resource that moderate organizational e-HRM adoption decision. Further, we include only HRM effectiveness as the outcome of the organizational e-HRM adoption. As suggested by the extant literature organizations expect to

achieve three main goals with e-HRM adoption. Thus future studies can consider other two main goals that are not considered in this study.

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## ONLINE PAYMENT SECURITY IN E-COMMERCE: A NEW APPROACH TO E-PAYMENT THROUGH NFC TECHNOLOGY

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### ABSTRACT

In response to the increase in the number of ecommerce security incidents and frauds firms and governments are seeking alternative forms to financial transactions. Unlike traditional payment which can be authenticated by account information the lack of physical presence and information based authentication leads to information theft and frauds in the online environment. In this study, the online payment methods including NFC secure element technology and excluding the exchange of sensitive accounts between customers and e-merchants is discussed and a system is proposed to enhance online payment security without creating significant impact on customer's online shopping experience.

**Keywords:** *Internet, E-payments, NFC, Internet Security, Online Payments*

### INTRODUCTION

Although e-commerce has continued to grow in terms of the number of transactions and revenue, important issues such as customer security and privacy limit the volume of e-commerce worldwide a significant number of consumers hesitate to buy online due security concerns. This often happens even though the same products are available online at lower prices. One area limiting international expansion is that a significant number of online merchants don't accept orders from other countries because of the fear of fraud.

Trading activities including e-commerce require safe and reliable ways to transfer money. Payment for traditional trading can be made with cash, credit cards or other physical instruments whereas electronic payment usually relies on only account information such as credit card numbers and dates. Consumers' perceptions of the security of e-payment systems have a great influence on the evolution of electronic commerce because consumers are very sensitive to the information security risks. In this regard, electronic payment methods become one of the major components of business operation in online trading. Since the Internet was not initially designed for commercial activities and banking transactions, existing mainstream online payment methods are still considered insecure.

In recent years, even though some of emerging payment methods offer the solutions to alleviate the inherited security flaws, indeed most of them don't offer complete solutions that diminish two critical problems: the lack of authentication problem and sharing all account information with online traders. In almost all online payment options, customer's authentications are dependent on customer account information. Besides, in most of the mainstream online payment methods, customers are required to share their information with e-merchants.

This paper explores security incidents and their impact on e-commerce and emerging and mainstream e-payment methods are reviewed. In order to enhance online shopping transaction security, the online payment method including NFC secure element based authentication is proposed. The model brings new approach which excludes sensitive information flow between consumers and online traders. The proposed model does not involve radical technological change and avoids impacting the online customer's experience.

## **SECURITY INCIDENT, FRAUD IN INTERNET: PHISHING AND SCAMS**

Usage of Internet for commercial transactions has given birth to many different types of problems. One of the most important problems which Internet users face is fraud. The method of perpetration of fraudulent activities has quickly evolved since widespread usage of the Internet. Many criminals have also adopted new mediums (Koong et al, 2012) as criminals are develop new techniques to defraud merchants and customers. It is important to note that businesses that store customer's personal data including payment card information are entirely responsible for the security of these data. In order to enhance cyber security against a wide range of fraud the role of stakeholders including merchants, customers, all relevant service providers, and other standardization and regulations bodies needs to be well defined with the individual responsibilities outlined in e-commerce ecosystems.

According to FBI's Internet Crime Complaint Center 2010 data, fraud is the most common type of crime. 70% of these victims were defrauded online. The majority of fraud was committed through spamming, phishing and scams (Frank et al, 2011). This may be attributed to the fact that the Internet provides anonymity to criminals. In review of at the FBI data, the most common type of Internet frauds is as follows (FBI, 2012): Internet Auction Fraud; Non-Delivery of Merchandise; Credit Card Fraud; Investment Fraud; and Business Fraud.

According to CyberSource 2012 report, merchants reported that 1.0% of total online revenue lost in 2011 occurred due to fraud. In addition to this loss, merchants rejected 2.8% of orders due to suspicion of payment fraud. It was also reported that merchants rejected much more international orders due to the fact that international orders have three-fold greater risk of fraud compared to domestic orders. In CyberSource 2013 report, estimated total revenue loss due to fraud in North America alone reached to

\$3.5 billion and the fraud rate increased from 0.6% in 2011 to 0.8% in 2012. Apart from direct losses due to frauds, many companies lose customers due to a lack of faith in the ability of the company to protect sensitive client information. The companies that are viewed as vulnerable to cybercrime eventually lose their market values. This results in loss of existing customers as well as potential new entrants into the ecommerce sphere. Therefore all online merchants have to worry not only about their own security but also public perception.

## **INHERENT SECURITY FLAWS IN ONLINE PAYMENT METHODS**

Internet was initially not designed for financial transactions and if there is no additional security layer or protocol, TCP/IP protocols carry all data packages over unreliable wire or wireless infrastructure without performing encryption. In order to ensure data security, SSL/ TLS (Secure Socket Layer/ Transport Layer Security) is widely used to protect sensitive information against tapping. However, SSL is not capable of providing security against a range of attacks such as malware infections which can be used to collect sensitive information including credit or debit card information. Today, most online merchants emphasize their SSL enabled payment method while ignoring other aspects of e-payment security instilling a false sense of security in consumers. But SSL is actually used to remove inbuilt vulnerability of TCP/IP rather than enhancing transaction security.

Inherited security flaws in online payments basically result from the fact that sensitive payment account information is transferred through public Internet and end user can only be authenticated based on the information typed in by customers. The second reason is that customers' account information is mostly stored in the e-merchant database.

Most online payments today are made through credit and debit cards. The main problem regarding online payment by credit or debit cards is that these methods were originally designed as offline payment instruments (Vincent, Folorunso, & Akinde, 2010). Therefore, the structure of these cards inherently never met online security requirements. In order to enhance online payment security, SET (Secure Electronic Transfer) scheme has been endorsed by major credit card companies. However, this method has never been adopted on a wide scale (Basu, & Muylle, 2003). SET currently requires cardholders to install software and certify themselves as online merchants requiring heavy implementation and configurations (Girard, , Lanet & Plateaux, 2010) Although SET was designed to remove inherent weaknesses of credit cards, it increases complexity. As another protocol, 3D Secure was developed to reduce frauds by strengthening authentications (Girard, , Lanet & Plateaux, 2010).

PCI-DDS compliance has become important part of e-Commerce operations in terms of protecting stored data from being compromised. However; PCI-DDS compliance does not provide protection for data that has already been compromised (FirstData, 2010). In other words, cyber thieves continue to



defraud merchants and customers once they capture personal data from any source. It should be noted that PCI-DSS can be considered as only one important step to help merchants keep their customer data secure.

## **SECURITY DIMENSION CONCERNING ONLINE PAYMENTS**

There are a variety of payment methods available which also allow online payment. In addition to credit cards, debit cards, and bank account numbers, a wide range of payment options have emerged such as PayPal and Google Checkout in the last decade. Although credit and debit cards dominate online payment markets, a wide range of payment systems have emerged in last few years. Apart from marketing models, different kinds of payment methods may include: password, symmetric or asymmetric cryptography, smart card, 2D bar code and biometric methods (Isaac, & Zeadally, 2012). Despite the fact that new e-payment methods offer various security measures and mechanisms, many problems still remain (Kim, W., Shin & Kim, 2010).

## **EMERGING E-PAYMENT METHODS**

The percentage of total number of online payments which are done by the means of credit or debit cards account for 90% (Kim, W., Shin & Kim, 2010). Today mainstream e-payment market is still dominated by credit card companies. There is an increasing number of customers and e-merchants using alternative online transactions methods such as PayPal, Google Checkout, Amazon Payments, and even Apple iTunes due to lack of confidence in e-merchants.

As a main player in payment market banks are being negatively affected by new payments methods and the development in information technology is resulting banks to face new challenges. Banks and credit card companies have competitive advantages over new players, however, regulation systems make banks less innovative (Deutsche Bank, 2012) . As a result of resistance to change, limited competition and security concerns nonbank payments have experienced an increase. According to the Survey of Consumer Payment Choice (SCPC) by the Consumer Payments Research Center at the Federal Reserve Bank of Boston (Foster et al, 2011) as of 2009 one in three consumers in USA had nonbank payment account to make online transactions. In the Europe, 6% of transactions in 2010 were handled through nonbank payment services and nonbank payment share is expected to 8% in 2013 (Deutsche Bank, 2012). The increase in market share of alternative payments players shows that new entrants will continue to be a threat to banks and credit card companies and examples of new nonbank payment service providers entrants include: E-Bay with PayPal and Amazon with Amazon Payments;

Google with Google Checkout and Google Wallet; Verizon, AT&T and T-Mobile joint-venture NFC based mobile payments called ISIS.

It could be said that there are basically three factor; security, accessibility and convenience which play a role in adoption of security. In addition to these factors, transaction costs could have an impact on consumer preferences. Since consumers have e-payment options it is likely that they will switch their payment methods when faced with negative experiences resulting from insufficiency of security, sensitive about information security and privacy as well as accessibility and convenience. It should be noted that consumers will become more than ever in conjunction to the growing number of electronic transactions.

## **RECENT TRENDS IN E-PAYMENT: SPOTLIGHT ON NFC**

In recent years, NFC become a significant alternative technology to all traditional and legacy electronic payment systems including tickets, card pass system and most importantly plastic credit and debit cards. Near Field Communication (NFC) basically allows consumers to pay for products or services through NFC enabled devices. This type of technology is being adopted in Asian environments but its introduction is fought by banks and credit card companies in the United States using the “straw dog” argument of lack of security when it could be considered that it is a loss of cash cow revenue which actually is fueling the switch in technologies. Such behavior was observed by phone companies resistance to move toward wireless and cable firms hesitancy to install fiber optic cables.

Even though NFC has not important shares in electronic payment market, it will not be surprise that NFC will dominate the market in following 5 or 10 years. According to MacLeod, 30 million NFC enabled mobile phone were sold in 2011 and an 87% annual growth rate make it possible to predict that 300 million NFC handsets will be sold in 2016 (MacLeod, 2012). Juniper Research predicts that the number of NFC phones will be 700 million while one out of six mobile phone user across the word will own NFC ready handset (Ceipidor, 2012; Frost&Sullivan, 2011). According to Frost & Sullivan, NFC will be expected to the most widely used technology as a mobile payments instrument, with about \$120 billion in global payment market (Ceipidor, 2012; Frost&Sullivan, 2011) .

In practice, customers have NFC enabled mobile phone while seller or service providers have standalone device which have necessary connection to complete transactions. Since NFC technology can be easily adapted to mobile phones and network technology, NFC brings remarkable convenience to customers while it creates enormous business opportunities for mobile network operators, phone makers and software and systems developers.

The technology also encourages different types of companies such as mobile network operators, mobile phone and software developers to create their own electronic payment solutions. Different mobile operators with their partner including mobile handset manufacturer and software/ operating system developer tend to develop their own payment systems (Shifeng, & Rong, 2010). In order to offer complete, convenient and secure payment solutions, NFC also forces different solution provider having different business background to work together. For example, MasterCard PayPass, ISIS and Google Wallet applications involve chip makers, software developer, financial institutions, network operators etc.

NFC can be used in a variety of applications and it allows application developers to implement different methods of payment. It should be also noted that there is no commonly agreed standard NFC application in the market space. For example, it can be possible to see NFC elements in embedded element in the mobile handset, a SIM Card or removable memory. Depending on the type of NFC used in an e-payment application, one of the stakeholders in NFC ecosystems becomes dominant. It can be argued that mobile handset producers support 'embedded element in the mobile handset' while mobile network operators try to endorse NFC enabled SIM Card technology.

NFC technology seems to be capable of giving direction to not only mobile but also online payment. However NFC is well-known for contactless mobile payment, it can be also used for online transaction (MacLeod, 2012). As discussed above, the major problem in e-commerce is that frauds in e-commerce associated with theft of customer's sensitive information such as payment and bank accounts. Unlike traditional shopping, payment procedures in e-commerce require only information that consumers type without any physical cards or chip. Therefore current transaction methods never present strong authentication against the fraud or theft of sensitive information due to the absence of physical authentication. Even though NFC was initially designed for near field mobile payment, physical chip based NFC payment methods can be adapted to online payment transactions via mobile network operators.

It is possible to create new online transaction procedures with NFC technology to make online payment more secure as well as innovative. One of the possible methods that was currently tested by MasterCard and ING Bank give a chance to simulate near field payment through QR code on e-merchants websites. In that scenario, online payment is completed by mobile phone applications (NFC World, 2012). ISIS is another important example that shows how mobile network operators involves payment process secure element in SIM card; however it offers only mobile payment options.

## **NFC ADAPTATION TO E-COMMERCE TO ENHANCE ONLINE SECURITY**

In this study, how SIM based NFC applications can be used in online payment transactions is discussed. In order to enhance online payment transactions, the model that does not involve sensitive account information exchange between merchant and buyer is proposed. Instead, the proposed model includes hardware based encrypted token exchange. In this model, the payment process is initiated by buyers rather than merchants. The embedded secure element in SIM is used only for authentication of payment account holder and there is no sensitive account information exchange.

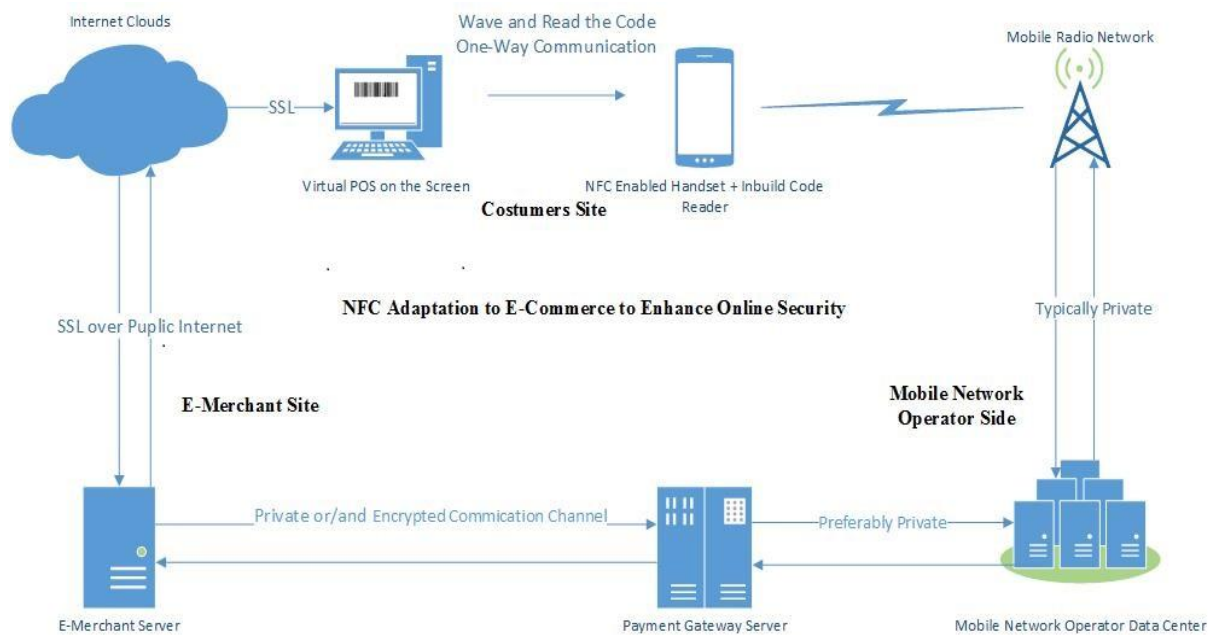


Figure 1. Transaction flow through NFC enabled mobile phone and mobile

#### Online Payment Process:

1. Customers shops online
2. Customers complete shopping and place orders
3. E-Merchant generates unique QR includes e-merchant ID, date, and unique order number and QR appears on the customers computer
4. Customer reads QR by handset, type PIN, and sent it to the Payment Gateway with unique token that generated by secure element
5. Customer is authenticated by Trusted Service Manager(TSM)
6. Payment Gateway (PG) receives the QR via TSM.
7. PG knows e-merchant by e-merchant ID in unique QR. PG asks the e-merchant whether it is waiting for this order.
8. If e-merchant confirms the order, it reply to PM with the amount of payment

9. PM return to the customer with the total amount of payment. And it waits for getting customer's final confirmations with typing PIN code.
10. Once the customer confirm the payment, the transaction is completed

In that payment scenario, QR has transaction ID. At the end of the each online shopping, e-merchant creates a new and unique QR. This QR represents transactions rather than any of products. Basic function of QR is to allow customers to take information without typing a typical QR usage. The sample QR structure for the proposed online payment procedure is given in Table 1. This structure mainly includes Unique Company ID, Date and Time, Order ID as well as reserved space for future application.


	<p>32Bit    Reserved    For    Future    Application:2^32          =4,294,967,296    ##    32Bit    UniqueCompanyID:2^32          =4,294,967,296    ##    DateTime:MM/DD/YY    ##    32Bit          OrderID:2^32 =4,294,967,296</p>
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Table 1. The Example of Plain Text QR Code for Online Transaction

The strengths of the proposed model can be listed as follows:

- This model does not require any changes in customers' online shopping experience other than the check out.
- There is no sensitive credit or bank account information exchange. Instead authentication codes are exchanged between customer's handset and mobile network operators. Customers don't have to share financial accounts information with e-merchants accordingly
- Even if e-merchant's website is replaced by a fake website, customers cannot be victimized because of the fact that there is no information flow from customer's site to the website. In addition, e-merchants can be verified through Payment Control Gateways.
- Authentication is performed by hardware based token generators. Since other applications are not allowed to reach the secure element, possible viruses or malware in the phone cannot involves or interfere authentication process.

On the other hand, this model requires connections and databases in order for Payment Control Gateways to check and reach each of e-merchants. In addition mobile network operators become more important to complete each transaction.

## CONCLUSION

Although the number of innovative online payment have been emerged recently, their market share are still limited compared to mainstream payment methods such as credit card or debit cards. In order for emerging online payment methods to be mainstream, consumers' security concern should be diminished. Most emerging online payment methods rely on SSL technology; however, SSL technology does not provide security mechanism such as Trojan horses and other malwares at the customer site. In most of the e-payment methods, customers are forced to types or share their payment account information with e-merchant in the most payment cases.

Fraud and information theft in Internet creates significant impact on e-commerce. Every security incidence also causes consumers to shop less online. It can be said that e-commerce activities across the words can keep growing more rapidly once consumers are given more reliable / safer payment options. Existing online payment transactions are based on the exchange of sensitive account information through Internet connection. Due to the absence of physical presence, e-merchant or payment account providers authenticate consumers with only account and some kind of personal information.

Online transaction securities in e-commerce can be strengthened in case the risks in customers, e-merchant, payment account providers are minimized. Even if e-merchant and payment account providers enhance and protects their systems against possible attacks, customer's site security cannot be guaranteed.

In order to enhance online security, sensitive account information exchange must be minimized or eliminated. In addition, customer authentication mechanisms must be relied on physical presence rather than only information which are typed by customers. Therefore, most of the fraud types and information theft can be prevented.

Although NFC technology was not initially designed for online payment, it can be adapted to online payment to make transactions more secure and NFC should be integrated into online payment methods to simulate card-present transactions methods with hardware based and single use token capabilities. The different forms of secure element structure in NFC can be used to authenticate consumers. However, hardware based strong authentication requires a wide range of stakeholder including mobile phone manufacturer, mobile operating system developers, financial institution and even big e-merchant to work together.

Due to the severe competition in e-payment market and technical availability for different scenarios, e-payment market goes to diversified payments options. Even though diversification brings new business opportunities, inherited security vulnerabilities in online payment can be only improved by

only standardization efforts. In addition, competitive manner that exclude financial institution and want to have full control over payments is limited to the market potential.

In this study, security flaws and frauds in e-commerce are discussed. Emerging e-markets and its players are reviewed. To provide strong authentication mechanism, payment account information exchange necessity should be eliminated between e-merchant and customers. In that payment scenario, real transaction takes places e-merchants and payment gateways. The secure element in customer handset is used as physical authentication device. At the end of the transaction customer confirmation are required. The proposed model does not create any significant impact on customers' shopping experience or does not require any change in e-merchant website; the only change happens during check out process. In addition, the proposed model does not offer technological changes. Essentially, it aims to minimize customer sensitive information's involvement during check out process.

Security concerns in online payment is still significant barrier to keep e-commerce the across the words under the market potentials. Besides, relatively small e-merchant has disadvantages to well-known e-merchants due to the fact that customers don't want to share their banking or credit card information with not famous e-merchants. Once customers have secured online payment options which don't require sharing credit and banking account with e-merchants, the size of e-commerce in terms of the amount of money and the number of transactions will be significantly increased. In addition, most of the small and middle size e-merchants will have more customers if provision of account information is not involved in online shopping.

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## THE ADOPTION OF ACADEMIC TECHNOLOGY TRANSFER PRACTICES: AN INDIVIDUAL LEVEL PERSPECTIVE

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### ABSTRACT

The study aims to explore what are the determinants and the intensity of the adoption of academic technology transfer practices. Starting from the analysis of the literature we propose a conceptual model to explain which are the determinants of university-industry relations and how they influence such relations. The model is tested on the faculty of the University of Siena active in the area of Life Sciences with specific reference to consulting and patenting activities. The results show how the University can no longer be regarded as a “monolithic” actor, but as an organization in which the adoption and diffusion of an organizational practice are influenced significantly by the individual characteristics of each subject of the organization. It highlights in particular how a certain scientific reputation is associated positively with the number of registered patents and negatively, over a certain threshold, to the number of consultancies carried out. It finally highlights an “imperfect complementarity” between patenting and consultancies. The latter increased in the presence of a patent, but not vice versa. It therefore seems to exist a trade-off between scientific reputation and university-industry relationships. The achievement of a certain level of scientific quality initially favors the provision of consultancy work, but over a certain threshold, the scientist begins to focus on the scientific productivity. Conversely, with regard to patent, the relationship is positive and the scientific excellence in some way facilitates the transfer of the scientific results in an exploitable asset (the patent).

**Keywords:** *organizational behaviour, technology transfer, academic entrepreneurs, life sciences, university-industry linkages*

### 1. INTRODUCTION

The studies on the technology transfer practices, and in particular on the patenting activity, explode since the 80s also on the wave of some significant public policies adopted by the United States. If we focus on academic technology transfer the theme begins to find ample space in scientific journals since the mid- 90s. More recently, many studies in the literature have explored the ways in which individual academics choose and manage their engagement activities with industry (e.g., D’Este and

Patel, 2007; Landry *et al.*, 2010; Giuliani *et al.*, 2010; Colyvas and Haeussler, 2011; Perkmann *et al.*, 2011). The University has in fact begun to support its two historic and traditional missions of education and advancement of knowledge through basic research also with a third mission: to contribute to the economic development of a country or region (Etzkowitz *et al.*, 2000, p. 313). Academic Institutions may in fact contribute to the potential for innovation and R&D (Lazzeroni and Piccaluga, 2003) as suppliers of human capital at different levels and degrees of specialization, such as technology transfer centers promoting the economic exploitation of scientific results, as producers par excellence of new knowledge or as centers of regional development through the management of innovation projects in the area. The way in which this occurs covers a broad spectrum of activity that goes beyond the simple management of intellectual property rights (Cohen *et al.*, 2002; D'Este and Patel, 2007). Surely the activities mostly explored in the literature were (Landry *et al.*, 2007): *Patenting* (Henderson *et al.*, 1998; Mowery *et al.*, 2002), *Licensing* (Thursby and Thursby, 2002) and *Spin-off* (Link and Scott, 2005; Shane and Stuart, 2002). However, it is now generally recognized that, alongside these, other types of university-industry relations should be considered: consultancy works, joint research programs, and also informal activities such as meetings, seminars, etc (Giuliani *et al.*, 2010; Landry *et al.*, 2010).

We aim to answer to the following research questions: 1) What are the determinants that explain the propensity of an academic to engage in consulting and patenting activities? 2) What are the determinants that have a significant influence on the number of consultancies and the number of patent registrations? 3) Is there a complementary relationship between the two types of activities, and between these and the performance of collateral domains (e.g. scientific productivity)?

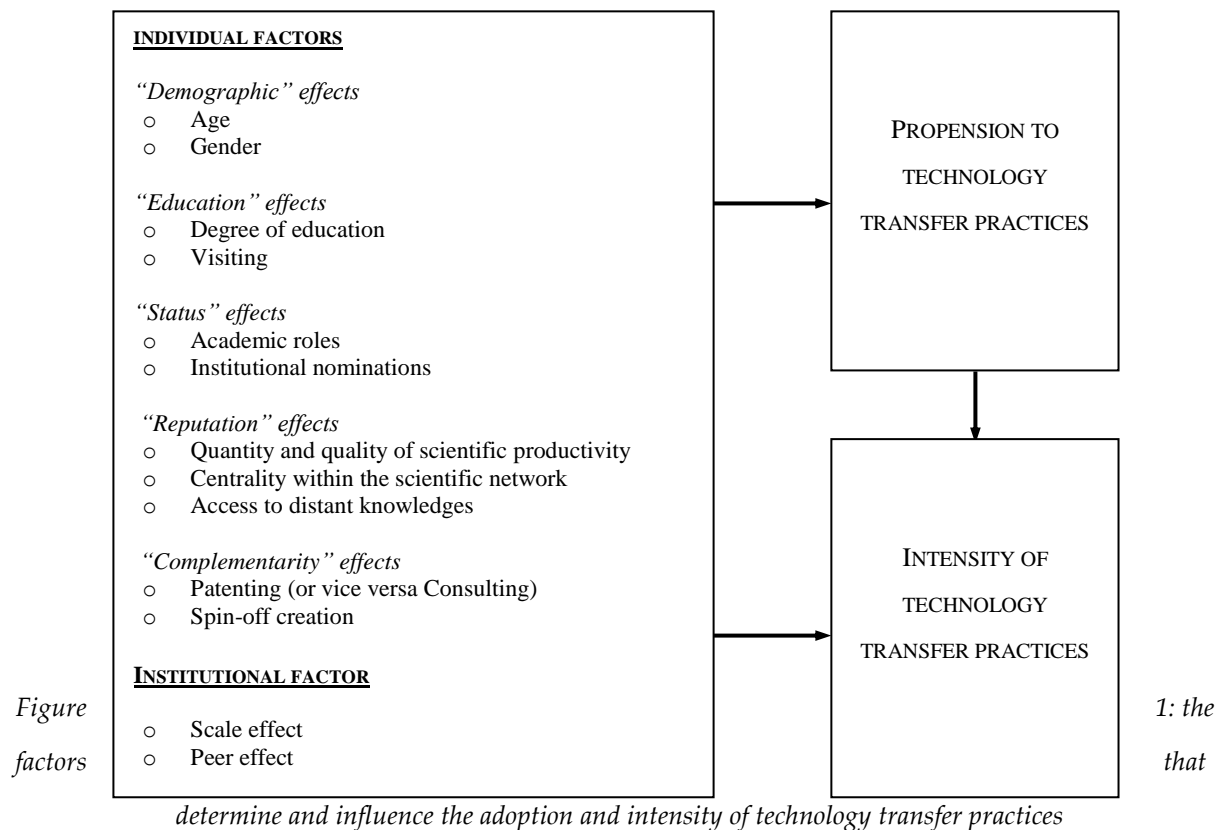
## 2. THEORETICAL BACKGROUND

In the first half of the 2000s many studies on technology transfer have focused in particular on the role of institutions, first of all the universities and the Offices of Technology Transfer (Lambooy, 2004; Bercovitz *et al.*, 2001; Siegel *et al.*, 2003). Despite the increasing attention paid to the institutional role within the process of technology transfer, there is still no consensus in the literature about the determinants of the links between universities and industry (Giuliani *et al.*, 2010). Giuliani *et al.*, (2010) identify two predominant theoretical approaches (Giuliani *et al.*, 2010, p. 749): 1) “*evolutionary*” and “*resource-based view*” approaches: in this case the formation of links depends on the capabilities and skills of the actors (single researcher or organizations) who take part, 2) “*institutional*” approach: the formation of links instead depends on the context in which the actors are established (type of organization, culture, the environment in which the research takes place, etc.). As we have already mentioned, in particular, there is a recent literature on the characteristics of individual researchers and

their role in determining university-industry relationships (e.g. Bercovitz and Feldman, 2008; Boardman and Ponomarev, 2009) and some studies have also tried to combine the two approaches in a complementary manner (e.g. Giuliani *et al.*, 2010; Landry *et al.*, 2010; Perkman *et al.*, 2011). Nevertheless conclusive results in the literature on the determinants of the linkages between universities and industry do not seem to be present yet. (Giuliani *et al.*, 2010, p. 749). First of all, at the theoretical level the two approaches that have prevailed until a few years ago, seem, by themselves, unable to explain the real determinants of U-I interactions due to the presence of different actors (individual vs. organization), stakeholders, logics, etc. This limitation seems now overtaken by a complementary vision of the two theories (e.g., D'Este and Fontana, 2007; Landry *et al.*, 2007b; Boardman, 2009; Landry *et al.*, 2010; Giuliani *et al.*, 2010). In rare cases it has also been sought to understand how participation in activities of technology transfer and the diffusion of the same organizational practice is influenced by the work context in which the individual researcher is operating (e.g. Bercovitz and Feldman, 2008). In particular, the distance that at different levels (cultural, political and technological: cfr Ansari *et al.*, 2010; Fiss and Zajac, 2004) separates the behavior of a researcher from another one of the same organization (department or research group) was not taken into account or only partially considered (e.g. Bercovitz and Feldman, 2008; Giuliani *et al.*, 2010). Finally, in rare cases, it has been investigated the possible effects of complementarity, substitution or independence between the different modes and channels of interaction U-I (e.g. Bercovitz and Feldman, 2008; Landry *et al.*, 2010 Crespi *et al.*, 2011). At the empirical level instead very few longitudinal studies have examined the heterogeneity in the behavior of the individuals involved in technology transfer activities (e.g., Crespi *et al.*, 2011), however sometimes limiting the analysis to few channels of interaction (e.g. Bercovitz and Feldman, 2008). Finally, with respect to many individual and institutional determinants included in the models of engagement conflicting results have been found.

### 3. CONCEPTUAL FRAMEWORK

Starting in particular from the work of Bercovitz and Feldman (2008), Giuliani *et al.*, (2010), Landry *et al.* (2010), Landry *et al.* (2007b), Stephan *et al.* (2007) and trying to develop, integrating them where possible, the models proposed in these contributions, we propose a framework of analysis that will help to clarify the determinants that, on the one hand, explain the propensity of an academic to undertake consulting or patenting activities and, secondly, explain the extent of these specific relationships between universities and industry. The framework of analysis is shown in figure 1.



Compared to the contributions mentioned above institutional nominations have been included among the "status" effects. Among the "reputation" effects we have considered the "access to distant knowledge". We will verify in fact if the collaboration with foreign colleagues have influence on the extent of university-industry relations or on the propensity to engage in such activities. Compared to the model of Giuliani *et al.* (2010) we finally have included the effects of what we here call "complementarity". We wonder if the patenting activity can influence the consulting activity and vice versa (as suggested by Landry *et al.*, 2010, or Bercovitz and Feldman, 2008). Finally, we emphasize that at the level of theoretical premise not all factors that influence the amount of university-industry relations can also determine the propensity of an academic to entertain such relationships as suggested in Stephan *et al.*, 2007.

## 4. METHODOLOGY

### 4.1 Empirical setting and measures

The study is based on a dataset containing the curricular data, the scientific productivity, the number of registered patent and the consulting activities of 301 academics of the University of Siena, active in the field of Life Sciences. The population was selected basing on the following criteria: 1) be still

serving at the Università of Siena at 31 December 2010, 2) be at least the author of an article in the Life Sciences area published in peer-reviewed journals.

In particular, the data sources for each section of the dataset are:

- Scientific productivity: search engines and bibliographic databases available at the University of Siena (in particular ISI Web of Science);
- Curricular variables: curriculum vitae available on line on the website of the Departments;
- Patents: free access patent databases available on line;
- Consulting activities: the data were made available by the Liaison Office of the University of Siena.

The variables included in the model are:

A) Dependent variables:

a.1) *CT*: measures the number of research agreements or consultancy works during the period 1991-2010;

a.2) *Patents*: measures the number of patents (patent families) registered in period 1991-2010.

B) Independent variables:

B.1) "Demographic" variables:

b.1.1) *Age*: measure the age (in years) of each academic researchers;

b.1.2) *Gender*: measured as a dichotomous variable that takes the value "1" if the subject is male and "0" if female.

B.2) "Educational" variables:

b.2.1) *SpecPhD*: measures the level of education attained by the individual academic through a dichotomous variable that takes the value "1" if the person holds a PhD degree or specialization (the latter in the medical field), "0" otherwise;

b.2.2) *Visiting*: dummy variable that takes the value "1" if the academic has carried periods of visiting at universities or research centers abroad during their postgraduate training period or already acting as a visiting professor.

B.3) "Status" variables:

b.3.1) *Role*: dummy variable that takes the value "1" if the academic is full Professor or associate Professor, "0" otherwise;

b.3.2) *InstNom*: dummy variable that takes the value "1" if the subject had institutional nominations within its Department or University, "0" otherwise.

B.4) "Reputational" variables:

- Quantity and quality of scientific productivity:

b.4.1) *NPubl*: total number of publications;

b.4.2) *IFcum*: cumulative impact factor of the researcher.

- The position within the international scientific network and access to distant knowledge:

b.4.3) *NetCentr*: indicates the centrality of the researcher within the scientific network measured as:  $[d(n_i) / (g-1)] \times 100$ , where  $d(n_i)$  is the index of degree within a network and  $g$  is the total number of nodes in the network;

b.4.4) *CoautFor*: indicates the proportion of foreign co-authors (affiliated to foreign universities) with which the academic has published.

B.5) "Complementarity" variables:

b.5.1) *DummyCT*: dummy variable that takes the value "1" if the researcher carried out consultancy works, "0" otherwise;

b.5.2) *DummyPat*: dummy variable that takes the value "1" if the academic has registered a patent, "0" otherwise.

B.6) "Institutional" variables:

b.6.1) *SizeDept*: For each researcher measures the number of researchers affiliated to their Department;

b.6.2) *PeerEffCT*: For each subject is measured as the difference between the total numbers of consultancies carried out by the researchers affiliated to the Department and their own;

b.6.3) *PeerEffPat*: For each subject is measured as the difference between the total number of patents registered by the researchers affiliated to the Department and their own;

Finally, we have included in the model the dichotomous control variable MED that takes the value "1" if the researcher belongs to the medical field, "0" otherwise. It is not possible at present to use the variable spin-off for the small number of academics who have participated in the creation of entrepreneurial activity.

## 5. RESULTS

In order to investigate the university-industry relationships and a series of relevant factors We have chosen to use a count data model based on the likelihood approach: the zero-inflated negative binomial (ZINB) model. The choice is motivated both by the discrete nature of the response variables (consultancies and patents) and by the high proportion of zeros within these (cfr Stephan *et al.*, 2007 or Landry *et al.*, 2007b). In particular, the excess of zeros may arise from two distinct processes: in the first case the value "0" is recorded for those academics who have never done consultancy work or registered patents, respectively, in the second case, the "0" can originate from the fact that the academics of the sample did not do some of the two activities investigated in the time window considered.

Tables 1 and 2 show the descriptive statistics of the response variables (number of consultancies and the number of patents) with reference to the dichotomous independent variables used.

	<i>Gender</i>		<i>SpecPhD</i>		<i>Visiting</i>		<i>InstNom</i>		<i>DummyPat</i>	
	M	F	Yes	No	Yes	No	Yes	No	Yes	No
Mean	3,98	1,00	3,07	2,57	4,05	2,37	9,73	1,99	5,41	2,19
St. Dev.	8,58	2,86	7,59	6,53	7,92	6,74	12,77	5,54	8,04	6,72
n.	186	115	163	138	84	217	33	268	61	240
<i>t-test*</i>	Sig.		Not sig.		Not sig.		Sig.		Sig.	

\* Confidence level 95%; N = 301

*Table 1: Descriptive statistics of the number of consultancy works by the dichotomous variables*

	<i>Gender</i>		<i>SpecPhD</i>		<i>Visiting</i>		<i>InstNom</i>		<i>DummyCT</i>	
	M	F	Yes	No	Yes	No	Yes	No	Yes	No
Mean	0,93	0,66	0,75	0,91	1,01	0,76	2,36	0,64	1,60	0,41
St. Dev.	2,76	1,82	2,46	2,44	2,67	2,36	4,45	2,01	3,56	1,39
n.	186	115	163	138	84	217	33	268	106	195
<i>t-test*</i>	Not sig.		Not sig.		Not sig.		Sig.		Sig.	

\* Confidence level 95%; N = 301

*Table 2: Descriptive statistics of the number registered patents by the dichotomous variables*

Table 3 shows the descriptive statistics of all variables and their correlation coefficient.

Variables	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
1. CT	1.000																	
2. Patents	0.208**	1.000																
3. Age	0.186**	0.006	1.000															
4. Gender	0.204**	0.054	0.249**	1.000														
5. SpecPhD	0.035	-0.032	-0.019	0.059	1.000													
6. Visiting	0.106 <sup>^</sup>	0.047	-0.003	-0.029	0.350**	1.000												
7. Role	0.288**	0.155**	0.600**	0.300**	0.061	0.110 <sup>^</sup>	1.000											
8. InstNom	0.340**	0.221**	0.259**	0.188**	0.067	0.114 <sup>^</sup>	0.293**	1.000										
9. IFcum	0.241**	0.368**	0.069	0.104	0.070	0.222**	0.287**	0.254**	1.000									
10. NPubl	0.283**	0.268**	0.140 <sup>^</sup>	0.151**	0.109 <sup>^</sup>	0.213**	0.329**	0.326**	0.910**	1.000								
11. NetCentr	0.247**	0.320**	0.097 <sup>^</sup>	0.126 <sup>^</sup>	0.077	0.201**	0.331**	0.243**	0.868**	0.859**	1.000							
12. CoauFor	0.182**	0.31**	-0.054	-0.008	-0.027	0.111 <sup>^</sup>	0.07	0.136 <sup>^</sup>	0.326**	0.218**	0.223**	1.000						
13. DummyCT	0.543**	0.234**	0.246**	0.179**	0.050	0.208**	0.395**	0.342**	0.305**	0.295**	0.312**	0.125 <sup>^</sup>	1.000					
14. DummyPat	0.182**	0.671**	0.003	0.039	-0.084	0.147 <sup>^</sup>	0.186**	0.114 <sup>^</sup>	0.264**	0.206**	0.242**	0.147 <sup>^</sup>	0.217**	1.000				
15. SizeDept	0.050	0.285**	-0.147 <sup>^</sup>	-0.047	-0.073	-0.053	-0.006	0.020	0.056	0.010	0.132 <sup>^</sup>	-0.019	0.130 <sup>^</sup>	0.243**	1.000			
16. PeerEffCT	0.013	0.283**	-0.211**	-0.135 <sup>^</sup>	-0.071	-0.077	-0.085	-0.050	0.016	-0.053	0.026	0.018	0.083	0.293**	0.635**	1.000		
17. PeerEffPat	0.037	0.424**	-0.214**	-0.113 <sup>^</sup>	-0.191**	-0.090	-0.034	0.018	-0.001	-0.060	0.046	0.014	0.044	0.445**	0.601**	0.675**	1.000	
18. MED	0.053	-0.173**	0.125 <sup>^</sup>	0.206**	0.219**	-0.163**	0.026	-0.047	0.084	0.178**	0.212**	-0.087	-0.023	-0.259**	0.001	-0.096 <sup>^</sup>	-0.364**	1.000
Mean	2.841	0.827	53.977	0.618	0.542	0.279	0.555	0.110	133.157	41.043	0.335	0.052	0.352	0.203	25.100	54.339	21.585	0.581
St. Dev	7.114	2.449	8.840	0.487	0.499	0.449	0.498	0.313	172.741	45.825	0.307	0.093	0.478	0.403	6.901	37.084	35.512	0.494

<sup>^</sup> p < .10; \* p < .05; \*\* p < .01; N = 301.

Table 3: Descriptive statistics and correlations

The analysis of the correlation matrix shows some problems of collinearity between variables. In particular, the significant correlations between *Age* and academic *Role* ( $q = 0.600$ ), between *SizeDept* and *PeerEffCT* ( $q=0.635$ ), between *SizeDept* and *PeerEffPat* ( $q=0.601$ ), between *NPubl* and *NetCentr* ( $q=0.859$ ) and between *NPubl* and *IFcum* ( $q=0.910$ ), leave doubt about their collinearity. To overcome these problems we have decided to exclude from the analysis the variable *NPubl*.

We show now the results of the econometric model before processing with reference to consultancies and then to patents. As already mentioned the ZINB model used in the econometric analysis that follows begins with the estimation of the probability that the response variable takes the value zero. To check and initially limit the number of variables to be inserted in the *inflate section* (the one that estimates the probability of zeros) of the ZINB model we have proceeded to initially and separately estimate a classical logit model. In both case, pre and post removal of six outliers, the



results show that the probability of activating a consultancy work positively depends on the variables *Visiting*, *InstNom*, *IFcum*, *SizeDept* and *Role*. The results of the final model are shown in table 4.

	Mod. 1	Mod. 2	Mod. 3	Mod. 4	Mod. 5
<b>CT</b>					
<i>Gender</i>	0,609* (2,24)	0,583* (2,03)	0,566^ (1,93)	0,530* (2,20)	0,516* (2,12)
<i>Age</i>	0,046* (2,17)	0,050* (2,25)	0,048* (2,11)	0,051** (2,65)	0,052** (2,70)
<i>SpecPhD</i>		-0,494^ (-1,73)	-0,504^ (-1,83)	-0,459^ (-1,85)	-0,477^ (-1,89)
<i>Visiting</i>		0,649* (2,39)	0,636* (2,32)	0,782** (2,87)	0,772** (2,88)
<i>InstNom</i>			0,154 (0,50)	0,239 (0,83)	0,217 (0,76)
<i>IFcum</i>				-0,001* (-2,14)	-0,001* (-2,15)
<i>DummyPat</i>				1,004** (4,00)	1,046** (3,93)
<i>SizeDept</i>					-0,009 (-0,52)
<i>MED</i>	-0,080 (-0,31)	-0,0203 (-0,07)	0,0155 (0,05)	0,340 (1,27)	0,324 (1,20)
<i>Constant</i>	-1,541 (-1,31)	-1,809 (-1,38)	-1,735 (-1,30)	-2,226* (-2,01)	-2,012^ (-1,79)
<b>Inflate</b>					
<i>InstNom</i>	-2,174^ (-1,82)	-2,686 (-1,34)	-2,468 (-1,38)	-1,783^ (-1,79)	-1,801^ (-1,78)
<i>Role</i>	-1,306** (-2,88)	-1,283** (-2,72)	-1,298** (-2,72)	-1,246** (-2,66)	-1,234** (-2,59)
<i>IFcum</i>	-0,008* (-2,03)	-0,008^ (-1,78)	-0,008^ (-1,74)	-0,009* (-1,99)	-0,009* (-2,02)
<i>SizeDept</i>	-0,086** (-2,80)	-0,091** (-2,75)	-0,091** (-2,72)	-0,087** (-2,60)	-0,091** (-2,61)
<i>Constant</i>	4,096** (4,55)	4,159** (4,33)	4,172** (4,29)	4,160** (4,27)	4,270** (4,26)
<i>Wald Chi2</i>	19,75**	21,14**	24,16**	48,54**	48,06**
<i>LOG pseudo-L</i>	-417,077	-414,027	-413,907	-406,813	-406,712
$\alpha^a$	1,473**	1,477**	1,489**	1,216**	1,214**

^ p < .10; \* p < .05; \*\* p < .01; N = 295; z in parenthesis. <sup>a</sup> Sign. for LR test of  $\alpha = 0$

Table 4: Results of the zero-inflated negative binomial regression for number of consultancies

Not significant collinear variables were excluded from the analysis.

For the consultancy activity (CT), the probability of being zero increases with the decreasing of the cumulative IF (*IFcum*) and with the size of Department (*SizeDept*), as well as it decreases in the presence of institutional nominations (*InstNom*) and with the academic role (*Role*).

*Gender*, *Age*, *Visiting* and *DummyPat* are positive predictors of the number of consultancies. *SpecPhD* is negatively associated. It is interesting to note that the scientific reputation (*IFcum*) is a determinant of the propensity to engage in consulting activities but is negatively associated with the number of the latters. This gives a U-shaped inverted relationship. If the *IFcum* grows, the number of predicted

events (consultancy works) increase up to a certain threshold and then it decrease. The same survey methodology was then carried out with reference to the number of patents (Table 5).

	Mod. 1	Mod. 2	Mod. 3	Mod. 4	Mod. 5
<b>Patents</b>					
<i>Gender</i>	0,440 (1,33)	0,406 (1,24)	0,299 (0,98)	0,179 (0,61)	0,234 (0,82)
<i>Age</i>	0,002 (0,08)	-0,001 (-0,04)	-0,013 (-0,67)	-0,016 (-0,78)	0,004 (0,21)
<i>SpecPhD</i>		0,176 (0,49)	-0,277 (-0,69)	-0,278 (-0,77)	-0,093 (-0,28)
<i>Visiting</i>		-0,440 (-0,95)	-0,003 (-0,01)	-0,467 (-1,17)	-0,425 (-1,17)
<i>InstNom</i>			1,152** (2,82)	0,733^ (1,71)	0,497 (1,30)
<i>IFcum</i>				0,003** (3,03)	0,002** (2,59)
<i>DummyCT</i>				0,458 (1,45)	0,143 (0,44)
<i>SizeDept</i>					0,066* (2,13)
<i>MED</i>	-0,311 (-0,80)	-0,207 (-0,53)	0,0571 (0,14)	-0,454 (-0,97)	-0,298 (-0,65)
<i>Constant</i>	0,688 (0,72)	0,911 (0,85)	1,385 (1,34)	1,138 (0,98)	-1,726 (-1,25)
<b>Inflate</b>					
<i>Visiting</i>	-1,635** (-2,97)	-1,788** (-2,88)	-1,587** (-2,65)	-1,711* (-2,54)	-1,710* (-2,48)
<i>Role</i>	-1,537** (-2,80)	-1,562** (-2,96)	-1,496** (-2,81)	-1,378* (-2,53)	-1,340** (-2,70)
<i>PeerEffPat</i>	-0,053** (-4,08)	-0,050** (-4,09)	-0,050** (-4,29)	-0,050** (-3,14)	-0,040** (-3,15)
<i>Constant</i>	3,481** (6,56)	3,590** (6,70)	3,524** (6,47)	3,323** (6,35)	3,234** (6,21)
Wald Chi2	2,08	2,76	14,64*	41,77**	49,80**
LOG pseudo-L	-245,338	-244,750	-241,984	-232,223	-229,947
$\alpha^a$	1,866**	1,743**	1,443**	1,013**	0,693**

^  $p < .10$ ; \*  $p < .05$ ; \*\*  $p < .01$ ; N = 300; z in parenthesis. <sup>a</sup> Sign. for LR test of  $\alpha = 0$

Table 5: Results of the zero-inflated negative binomial regression for number patents

With regard to the patenting activity, the probability that this takes the value "0" increases when *PeerEffPat* decreases, in correspondence of the *Role* and finally in the case of a *Visiting*. Regarding instead to the predictors of the number of patents, only the *IFcum* and the size of the Department (it is possible to obtain the same result by replacing the collinear variable *PeerEffPat*) are positively associated with the number of registered patents.

## 6. DISCUSSION

First, the comparison between the two types of technology transfer activities shows that the reputation acquired by researchers thanks to the quality of their scientific productivity is a positive predictor of the number of registered patents (complementary effect) but a negative one (beyond a certain threshold) of the number of consultancy works (substitution effect). This result is in line with that part of the literature arguing that a trade-off between scientific publication and university-industry relations exists (e.g. Landry *et al.*, 2007a). Achieving a certain level of scientific quality takes time and dedication subtracted to consultancy activity and vice versa. In the case of patents the relationship is positive. A part of the literature in this regard has shown that the number and quality of publications brings to excel in other activities such as patenting (e.g. Breschi *et al.*, 2008). Figure 2 highlights the two relationships.

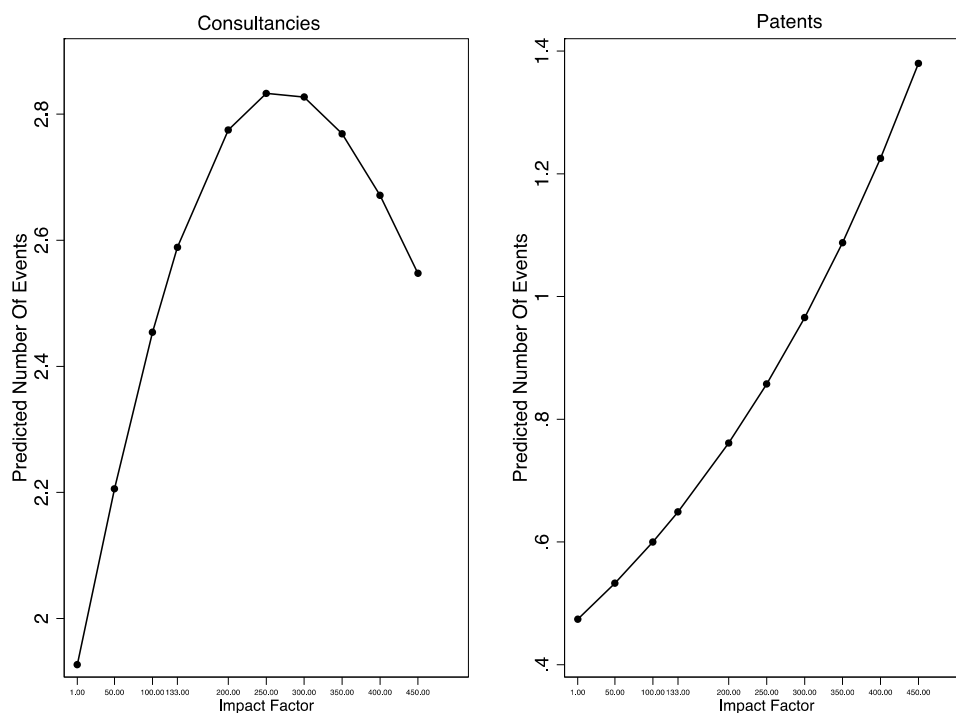


Figure 2: Predict number of events (Consultancies and Patents) as a function of the scientific quality

The patent is a factor whose presence ensures a positive margin in terms of the number of consultancies. This can be attributed to the fact that having a patent can motivate companies to apply for academic collaboration in order to use or to incorporate scientific discoveries into their activities (see Landry *et al.*, 2010). As regards to the other individual variables, age and gender are positive predictors for the number of consultancies as already part of the literature supports (e.g. Boardman and Ponomariov, 2009). Also a visiting period in a foreign university or research centre increases the number of consultancy works while it decreases in the case of specialization or PhD. In both cases

(visiting and degree of education) Giuliani *et al.* (2010) do not reach significant results. Our result is supported, however, by what the same authors argue: a high specialization level may lead to the academic focus on the scientific productivity (Giuliani *et al.*, 2010, p. 750). Coming to the institutional factors the size of the Department is a positive predictor of the number of patents (see Landry *et al.*, 2010) but also a positive factor in explaining the propensity of the researcher to engage in consulting activity. Compared to the patenting activity, the distance (in terms of patents) from the colleagues of the Department (*PeerEffPat*) is a key factor to explain the propension and a positive predictor of the number of patents (cf. Bercovitz and Feldman, 2008). Finally, the role and the institutional nominations are significant in explaining the propensity of the academic to undertake consulting activities. The reputation of the subject due to his academic status increases the probability of seeing him involved with the industrial world (cfr D'Este and Patel, 2007; D'Este and Fontana, 2007; Boardman and Ponomariov, 2009).

## 7. IMPLICATIONS, LIMITS AND FUTURE RESEARCH DEVELOPMENT

The study confirms that the University can no longer be regarded as a “monolithic” actor as claimed, until the end of 80s, by the most of the literature that has dealt with the relationships between university and industry (Link and Tasse, 1989, p. 49). The universities today present themselves as “organized anarchy” (Cohen *et al.*, 1972; March *et al.*, 1976) where the individual characteristics can influence significantly the propensity of the single academic to maintain links with industry (Landry *et al.*, 2010; Giuliani *et al.*, 2010). This raises new problems for the governance of the academy (Kraatz and Ikenberry, 2005; March *et al.*, 1976). New analytical frameworks are necessary to understand and evaluate the technology transfer processes (Landry *et al.*, 2010; Haeussler and Colyvas, 2011; Perkmann *et al.*, 2011) and their diffusion within the organization. The study suggests that policy makers and university administrators have to formulate their knowledge transfer strategies based on portfolios of activities (cfr Landry *et al.*, 2010) rather than on a single technology transfer practice.

In line with the obtained results it is possible to differentiate the activities of the academics to maximize their performance, in particular by identifying the threshold levels among scientific productivity and other technology transfer activities. On this basis it is possible to provide incentives and/or different career development allocating resources to maximize the outcomes of the portfolio of activities rather than a single practice. For example to anchoring the career advancement of single scholar to the only scientific productivity, as happens in many countries (e.g. Italy), may not be the most effective and efficient way to promote the development of the University limiting, *de facto*, the capability to raise external funding sources.

The proposed research highlights some limitations. In particular, the analysis was conducted only on one medium size university. A subsequent analysis of most universities (of different sizes) and, possibly belonging to different national systems, would help to further validate the results achieved. Secondly a longitudinal analysis of the phenomenon could allow to strengthen the results. Finally the analysis was carried on a single scientific field, albeit large, the Life Sciences.

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## FACTORS INFLUENCING THE EXTENT OF DISCLOSURES IN FINANCIAL STATEMENTS PREPARED IN ACCORDANCE WITH INTERNATIONAL FINANCIAL REPORTING STANDARDS

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### ABSTRACT

This paper is an attempt to identify the factors determining the extent of information disclosure in financial reports of selected Polish listed companies. Understanding the determinants that influence the extent of disclosure in financial statements is particularly important in the context of reporting standards harmonisation and the related process of IFRS coming into common use. The problem has been presenting itself in the form of a requirement for public companies in the European Union, including Poland, to use IFRS in consolidated accounts since 2005. Based on a panel study of factors determining the scope of information disclosed by 36 Polish public companies in the years 2005-2007, with the Polish Corporate Disclosure Index being used as a disclosure measure, a negative correlation between the extent of disclosure and the companies' financial performance was demonstrated. The outcomes are consistent with Huang *et al.* (2011), which showed an adverse effect of ROE on the transparency of companies from Taiwan. Both Taiwanese investors and their Polish counterparts, when analysing financial statements, focus mainly on a companies' bottom line, paying less attention to any other information. Hence, managers are less motivated to present the company standing in a more detailed manner if a satisfactory profit is generated. The study proved that companies covered by the analysis decided to disclose more when their profitability was lower, especially if the earnings were insufficient for any dividend payment. It may result from their disposition to justify the lack of dividend by explaining the financial standing in more detail.

**Keywords:** *International Financial Reporting Standards, IFRS, disclosure index, Annual Report Disclosures*

## INTRODUCTION

This paper is an attempt to identify the factors determining the extent of information disclosure in financial reports of selected Polish listed companies, the issue being particularly important in the context of reporting standards harmonisation, the process of IFRS coming into common use and the resultant requirement of companies in the European Union, including Poland, to use IFRS in their consolidated accounts since 2005. Quantification of the quality of listed companies' messages conveyed in their financial statements enables the examination of the company disclosure decisions. Analyses of the extent of disclosure in financial statements are impeded by the input of time and labour needed to measure the scope of disclosure, as well as the availability of data and the strong position of the problem in economic theory.

## OVERVIEW OF THE LITERATURE DISCUSSING THE PROBLEMS OF DISCLOSURE IN FINANCIAL REPORTS

Although – as it has been pointed out above – the studies on factors determining the extent of financial information disclosure are subject to a variety of limitations, attempts at approaching the subject can be found in literature, i.e. Meek, Roberts and Gray (1995), Raffournier (1995), Michad'lesco (1999), Huang *et al.* (2011), and also – in a slightly different context – Larran and Giner (2002), as well as Marston and Polei (2004). Table 1 presents potential factors influencing the extent of disclosure examined in the papers referred to above.

Meek, Roberts and Gray (1995) analysed determinants of voluntary disclosures, based on a list of 85 items of strategic, non-financial and financial information published by 226 selected public companies from USA, Great Britain and Continental Europe (France, Germany, Netherlands) in their financial reports of 1989. The resultant disclosure index represented a ratio of information disclosed to the total number of items listed. In order to examine how various factors affect the extent of disclosure, four regressions were estimated depending on the category of information: strategic, financial and non-financial information, and the general level of information disclosed which comprised the three previous groups. As a result of the analysis, the significance of dependent variables was found to vary depending on the type of information. The most significant variables explaining the extent of voluntary disclosure included the company size, the region of its origin and whether the company is solely listed on its domestic stock exchange, or on foreign stock exchanges, as well. Major companies clearly tend to disclose more information. Firms from Continental Europe seem to provide more information than companies in Great Britain or USA, and those listed on international markets disclose more than those whose stocks are only available on their domestic stock of exchanges (Meek *et al.*, 1995).



Based on annual financial statements of 135 Swiss listed companies for the year 1991, Raffournier (1995) developed a disclosure index for items specified in the Fourth and Seventh European Union's Directives and used it as a basis for examining disclosure determinants. The author obtained a considerably positive correlation between the disclosure index and the company size and scale of its international operations.

Michad'lesco (1999) examined disclosure determinants based on the data of 100 French companies in the years 1991-1995. The extent of disclosure was measured by means of an index based on scoring sheets containing a list of disclosures with an adequate quality of information. In order to verify the effect of variables listed in Table 1 on the disclosure index, the author used linear regression - for each year of the analysis separately however, this approach gave rise to certain interpretation problems. The model proved that the domestic status and the fact of being additionally listed on foreign markets are the only variables having any statistically valid, positive effect on the disclosure index. The positive correlation seems obvious, considering the need to meet additional information requirements in order to obtain a positive reputation on the Paris stock exchange or to be able to be listed on a foreign market. The analysis covers major public companies, mainly due to the availability of reports needed for developing the disclosure index. As a result, the outcomes of such empirical verification can be interpreted in the context of the research sample only and any generalisation would be flawed.

Huang *et al.* (2011) examined companies listed on the Taiwan Stock Exchange in a breakdown of two groups: "the more transparent companies" and "the less transparent companies". The empirical analysis of disclosure measured by the Securities and Futures Institute ranking was conducted on a sample of 1028 observations from the years 2003 and 2004. A logit model was adopted to accommodate the binary rating. The extent of control over companies was measured by binary variables reflecting the ownership structure in terms of supervisory board members, managers, government institutions and foreign investors participation and the proportion of independent members in the company management, as well as in its supervisory board. The authors took note of the electronics & IT industry with regard to its high share of venture capital financing as a factor potentially enhancing the extent of disclosure. The results suggest that the strict control of company activities reflected by the independence of members of its supervisory bodies and by the audit body size, has a positive impact on the information transparency measured by the ranking. Factors such as the financial leverage or the share of government institutions and foreign investors in the ownership structure had little significant effect on the level of transparency. Furthermore, the company scale was re-confirmed to influence the extent of disclosure and information transparency positively.

Modern technologies, with new Internet-based communication methods in particular, have turned scientists' attention to this context of corporate disclosures. Today, companies are increasingly willing

to use the Internet to convey information being the most cost effective and rapid means of publication today. Consequently, the factors determining their disclosure decisions have become the subject of studies. On-line reports are the main source of information for analysts and investors. Larran and Giner (2002) gave an empirical analysis of the nature of corporate approach to the Web-based business reporting, having examined a sample of 108 companies listed on the Madrid Stock Exchange, all of them maintaining websites in the period October-December 2000. Based on data published on corporate pages, the authors developed a disclosure index covering such aspects as the existence of a special page dedicated to investor relations, financial statements and analysts' reports, publication of stock exchange information, the number of reporting periods, the availability of a foreign language (e.g. English) option, and any encouragement to make direct contact via an e-mail address. The resultant index was used as a tool for comparing the Spanish companies' use of the Internet as an information channel with the results of other studies covering previous periods. Furthermore, the index was used to analyse the factors affecting companies' disclosure decisions. The company size was found to be the only aspect determining the level of disclosure on the Internet in Spain. Additional functionalities, such as video-conferencing or chats as means of contacting information officers were offered by major firms having sufficient resources and finding it necessary to add these attributes to their corporate websites.

Marston and Polei (2004) provided an empirical verification of how company characteristics determine the use of the Internet for the disclosure of information among the 25 largest and 25 smallest DAX 100 firms with regard to market capitalisation in 2000 and 2003. For the purpose of examination of the contents presented by the companies on their websites, a special checklist was prepared, with two sections of criteria: content and presentation, with the former playing a more prominent role in the final evaluation. The list for the year 2000 comprised 53 items, while in 2003 a further 18 were added in order to capture the new website content and features.

Potential determinants	Meek, Roberts, Gray (1995)	Raffournier (1995)	Michad'lesco (1999)	Marston, Polei (2004)	Huang, Huang, Chang, Fu (2011)	Larran, Giner (2002)
Profitability	return on sales	profit / (assets - liabilities)	operating margin	ROE	ROE	ROE
Financial leverage (extent of internal financing)	long-term debt / equity capital	debt to assets ratio			liabilities / assets	debt/ equity capital
Company size	revenue from sales	logarithm of sales		market capitalisation as at 30.06.2000 and 30.04.2003	logarithm of assets	logarithm of company market capitalization
Ownership structure		percentage of company shares owned by unknown shareholders			proportion of managers, supervisory board members and governmental institutions in the ownership structure	
Quality of control – size of firm auditing analysed company		binary variable 1 for an auditor from the “Big Six” (now “Big Four”)			binary variable 1 for an auditor from the “Big Four”	
Discrete variable indicating the industry sector	construction, engineering, consumer goods and services, chemical				electronics & IT	one of the three industry sectors
Scale of international operations	revenue from export sales to total sales ratio	revenue from export sales to total sales ratio				
Presence on foreign stock markets	dummy variable		dummy variable			
Country of origin	discrete variable (USA, UK, Continental Europe)					
Status on domestic stock exchange (meeting special information requirements)			binary variable		binary variable indicating whether company has issued shares	
Credit risk					Taiwan Corporate Credit Risk Index	
Tangibility of assets		(fixed assets - depreciation) / assets			fixed assets / assets	book value / market value
Systematic risk				beta computed for 250 days as at 30.06.2000 and 31.05.2003		

Table 1. *Potential determinants of the level of information disclosure*

A zero-one system was used as an evaluation tool ("1" was given when an item was present and "0" when missing). The scope of information disclosed online was measured by the proportion between the total score obtained in the analysis and the maximum score available. The resultant ratio was used as a response variable in the study of the impact of various factors on the extent of information disclosure by German public listed companies on their corporate sites. The level of market capitalisation reflecting the company size was the only variable affecting the extent of Internet disclosure both in 2000 and in 2003. Furthermore, the percentage of shares traded on the stock exchange was found to be a statistically significant variable solely in 2000, while the fact of being listed on a foreign market was significant in 2003 (Marston and Polei, 2004).

## **THE INFLUENCE OF POLISH COMPANIES' ATTRIBUTES ON THE EXTENT OF INFORMATION DISCLOSURE - HYPOTHESES**

Understanding the factors that determine company disclosure decisions are extremely important in the context of financial reporting standards harmonisation. It may be very beneficial for the bodies designing the reporting standards and controlling the observance thereof (audit firms) to explore disclosure determinants for guidance, focussing their activities intended to support businesses in reporting their financial standing in a trustworthy manner. Furthermore, this will enable them to identify the types of companies whose financial statements may potentially contain many frequent untruths or omissions.

Since 2005, EU publicly traded companies have been required to prepare their consolidated financial statements in accordance with IFRS. The implementation of this requirement was a very important step towards the harmonisation of reporting standards, resulting in significant changes in reporting practices in Poland and Europe. Therefore, the paper analyses the factors affecting the extent of Polish public company information disclosure in the first years following the introduction of compulsory reporting under IFRS. As such, factors affecting the extent of disclosed information in this paper were analysed in the initial years in which consolidated financial statements of Polish listed companies were supposedly obligatorily to be drafted according to IFRS. Hence, a set of variables has been selected and research hypotheses advanced with this context as well as the literature overview, presented earlier in this paper, taken into consideration.

The main focus here is on how ROI influences the extent of information disclosure. It seems that information asymmetry which characterises financial markets would strongly motivate well-managed companies to distinguish themselves from less profitable businesses and thereby raise capital on the best possible terms. According to the negative selection model described by Akerlof (1970), if more and less profitable companies (lemons) are treated by investors in exactly the same way, i.e. their

shares are priced at a similar, averaged level, a situation may occur whereby more profitable companies will not be able to obtain satisfactory financing from the issue of shares and they will fall from the market. Increasing the extent of a company's financial information disclosure and presenting the financial standing in a more specific manner is one way to raise its profile.

Furthermore, from the perspective of compulsory implementation of IFRS in Poland, these problems seem even more complex to analyse. The Polish Accounting Act provides a relatively restrictive specification of the information companies are required to disclose, whereas in case of IFRS a certain freedom is given in this respect, and, consequently, the extent of disclosure will be much dependent on company management. The requirement of preparing consolidated reports, according to IFRS, has therefore been a significant change for Polish corporations and, in a way, they have been given a choice as to what information they wish to publish. The higher level of disclosure which accompanies higher profitability seems to facilitate building an image of a proficient manager, thereby strengthening their position within the company, often reflected in their remuneration. Therefore, the following hypothesis can be advanced:

H1: In the period immediately following the introduction of compulsory application of IFRS, the extent of information disclosure by Polish companies increases with ROE.

Despite the strong substantiation behind the positive impact of profitability on the extent of information disclosure in the theory of economics, empirical verifications do not provide any unambiguous results. Profitability proved to be a significant determinant for Taiwanese companies in a single study only (Huang *et al.*; 2011), but this correlation was negative.

External financing appears in most studies examining determinants of the disclosure level referred to above, except in the analysis of German corporations. The quality of financial statements transparency may help solve the problem of information asymmetry between shareholders, managers and creditors. Companies using external financing should feel motivated to reveal more in order to meet their creditors' information needs and to enhance trust. An approach like this reduces the cost of monitoring, which often affects the expenditure a company has to make to obtain financing. A creditor, when forced to bear a higher cost of monitoring the debtor's financial standing, will charge a higher interest rate on the loan or – in the best scenario – will expect the debtor to pay the extra cost of drawing up a complex contract, for example. It is therefore expected that: H2: The extent of information disclosure by Polish companies increases with external financing.

Similarly, as in analyses carried out by Raffournier (1995) and Michad'lesco (1999), external financing was measured by a leverage factor equalling the debt to assets ratio. In this case, the debt item comprised financial liabilities to creditors, as well as debt securities issued.

Company size is another important determinant of information disclosure. It is relatively less costly to publish detailed data for major firms, as they usually prepare such reports for their internal purposes. Annual reports are a source of information for the competition, therefore smaller businesses will be reluctant to reveal all of their activities, fearing that this might compromise their competitive position. It is expected that: H3: The bigger the company, the more information it will disclose in its financial statements.

Similarly Raffournier's (1995) study of Swiss companies, the sales logarithm was used for the Polish market analysis as a variable approximating the company size.

Based on the literature overview (Raffournier, 1995; Michadlesco, 1999; Huang *et al.*, 2011; Marston and Polei, 2004) it can be stated that ownership structure is also an important factor influencing the extent of corporate information disclosure. The approach presented in the analysis of the information practice of Polish companies is closer to studies of the situation in the European countries where special attention is paid to the degree of dispersion in the ownership structure. The frequent conflict of interests between management and shareholder (e.g. when management seeks to maximise profit, resulting in overly risky decisions) leads to a temptation of malpractice, thereby necessitating additional cost of monitoring the management action. The tendency to make decisions contrary to shareholder interest is stronger when the company is not controlled by a small group of major owners. Managers in companies with a dispersed ownership structure will be more motivated to disclose more information, as this will add transparency to their behaviour, thereby giving the shareholders a sense of control over the board's actions. Therefore, it is expected that H4: The more dispersed the shareholding structure within the Polish companies (measured by the share of unknown shareholders), the greater the extent of information disclosure in reporting.

The quality of control exercised over companies – mainly over that of management – is the last determinant to be analysed in terms of its impact on the situation in Polish corporations. This issue was discussed in studies of Swiss and Taiwanese businesses, where the audit firm size was used as a measure of control quality. Auditors play a particularly important role in the development of corporate disclosure policy. Major, renowned audit firms will be capable of persuading the auditee to increase the extent of disclosure, since they have stricter requirements concerning the quality of reporting. If the report does not meet these criteria, the auditor will be unable to issue a positive assessment to be used as an indicator of the quality of the report data, thereby building investor trust. The "Big Four" audit firms – Ernst&Young, KPMG, PricewaterhouseCoopers, and Deloitte – are regarded as the largest and frequently the most revered, therefore ensuring the highest quality of information. Furthermore, the role of auditors is especially important in the context of compulsory reporting under IFRS, which was introduced in 2005. In case of any doubt concerning the extent of

information disclosure under IFRS, a chartered auditor might suggest modification of the final report. Hence, the following hypothesis has been advanced:

H5: The extent of corporate disclosure by companies audited by the “Big Four” will be greater than that by companies examined by smaller audit firms.

## DATA SET AND METHODOLOGY

The sample comprised 36 companies listed on the Warsaw Stock Exchange, for which consolidated financial reports following the IFRS were available for the years 2005-2007 (i.e. the first three years since the Polish public companies have been required to use IFRS in their consolidated accounts) and the Polish Corporate Disclosure Index (PCDI) was developed by the team of researchers led by Świdarska (2010). The companies in the research sample represented the chemical industry (13 firms), media (7), food & beverage (12) and telecommunications (4), i.e. the sectors which are relevant in terms of the interests of households and are characterised by a relatively high share of intangible assets. It should be noted that this is a non-random sample and is therefore non-representative. Consequently, if any valid statistical conclusions are to be drawn, the results should be interpreted in the context of the analysed companies only (Świdarska, 2010).

In the initial years following the implementation of IFSR, the mean value of PCDI for the analysed companies did not exceed 37.06 – the average level of disclosure (determined with an assumption that all questions used in the disclosure extent survey were scored 2 on a scale of 0 to 4). In 2005, the lowest level of disclosure was 14.63, i.e. well below the threshold (meaning a poor quality of disclosure), in 2006 the lowest PCDI – 18.53 – was close to the threshold level, but did not exceed it, this only happening as late as 2007.

In the period 2005-2007, the highest PCDI values exceeded 37.06, which implies an average degree of disclosure in the analysed sample, but the value representing a respectable degree of disclosure was achieved in 2007 (55.60, with all questions scoring 3 on a scale of 0 to 4). In all years covered by the analysis, PKN Orlen (oil sector) achieved the highest value of PCDI. The company has been using IFRS since 2002. The basic statistics of the sample companies show that the level of disclosure grew during the first years following the compulsory implementation of IFRS.

The Polish Corporate Disclosure Index was used as a dependent variable in the analysis of disclosure determinants. To make the results of the analysis more legible, the PCDI values were rescaled by the maximum level of disclosure (74.13). The values of exogenous variables (ROE, the financial leverage equal to the debt to assets ratio, the company size measured by the logarithm of sales, the percentage of unknown shareholders in the ownership structure, the discrete variable indicating the auditor being a member of the “Big Four”) were obtained for the sample companies based on their

consolidated annual accounts, management reports and chartered auditor's opinions for the years 2005-2007. The following panel model was used for analysing the impact of various company characteristics on the scope of information disclosure:

$$Y_{it} = \beta_0 + \beta_1 X_{1,it} + \beta_2 X_{2,it} + \beta_3 X_{3,it} + \beta_4 X_{4,it} + \beta_5 D_{1,it} + u_i + \varepsilon_{it}$$

where: Y- PCDI expressed in percent,

$\beta_i$  – constant or coefficients of variables,

$u_i$  – units' individual characteristics, non-observable, but constant over time,

$\varepsilon_{it}$  – purely random error,  $X_1$  – ROE,  $X_2$  – logarithm of sales (company size),

$X_3$  – debt/assets (financial leverage),  $X_4$  – shareholding dispersion,

$D_1$  – 0-1 variable indicating the auditor category (takes value 1 if a "Big Four" auditor and 0 in any other case).

## MODEL ESTIMATION FINDINGS AND VERIFICATION OF HYPOTHESES

Estimators of random effects and fixed effects are the most frequently used estimator types in panel analysis. In the case of the former, the individual effect is assumed not to be correlated with independent variables. On the other hand, when estimating the model by means of the fixed effect estimator, a correlation between individual effects and independent variables is admitted. Table 2 presents the findings of model estimation by means of the random effects estimator (RE) and the fixed effects estimator (FE).

The results of model estimation by means of the random effects estimator confirm the expected direction of correlations in the case of the logarithm of sales, the share of unknown shareholders in the ownership structure, and the audit firms size. On the other hand, negative estimations of ROE and debt to assets ratio coefficients indicate a correlation contrary to what was expected. It should be noted however, that while independent variables are significant in total, only three of the independent variables are showing a statistically significant impact on the dependent variable in this case.

The results obtained using the fixed effect estimator allow for confirmation of the expected direction of correlations in case of the logarithm of sales, the financial leverage ratio and the auditor category. ROE and the share of unknown shareholders in the ownership structure seem to show a correlation which is opposite to the expected one. It should be noted that ROE and the logarithm of sales indicate a statistically significant impact on the disclosure index, the constant being of some significance too. In order to determine which of the estimators referred to above is superior at estimating the values of parameters in this exercise, the test of overidentifying restrictions (Sargan-Hansen test) was applied. The Hausman test often used for evaluating estimators for panel models, could not be applied in this case, as the assumptions for the method test are not satisfied here. Similarly as in the Hausman test,



the possibility of a correct estimation of the model by means of the random effects estimator is assumed as a null hypothesis for the Sargan-Hansen test. The test showed that the null hypothesis should be rejected and, in consequence, the fixed effects estimator should be used for model estimation. Consequently, this estimator was chosen for further analysis.

For the sake of correct statistical reasoning, the assumptions regarding the random component's autocorrelation and homoscedacity were verified. Based on the Wooldridge test for autocorrelation, the no-correlation thesis should be rejected at 1% significance level. Therefore, the presence of the first-order autocorrelation of random errors in the model can be confirmed. Furthermore, the modified Wald test shows that the homoscedacity assumption appears not to be satisfied, either. At 1% significance level, the null hypothesis assuming homoscedacity of the random component should be rejected. In case of a non-spherical random component, the estimator is inefficient in the model with fixed effects. Thus, in order to immunise the estimations of the model parameters against its heteroscedacity and autocorrelation, the Applicable Method of Generalised Least Squares (GLS) was used, where the variance-covariance matrix is assumed to be unknown, therefore an estimated matrix is used. Table 2 presents the outcomes of regression analysis obtained using the Applicable Method of Generalised Least Squares (GLS1) and the final estimates obtained using AGMLS after elimination of insignificant variables (GLS2), with the first order autocorrelation and heteroscedacity.

Variable	Coefficients			
	RE	FE	SUMNK1	SUMNK2
Profitability – return on equity ROE	-0.0220** (0.0119)	-0.0548* (0.0146)	-0.0245* (0.00913)	-0.0239* (0.00920)
Logarithm of sales	4.276* (0.617)	8.254* (1.437)	4.805* (0.469)	4.767* (0.461)
Financial leverage	-0.0425 (0.0503)	0.0949 (0.0690)	0.00716 (0.0231)	-
Ownership structure	0.0140 (0.0423)	-0.0447 (0.0550)	0.00350 (0.0242)	-
Category of a firm auditing the analysed company	5.071* (2.138)	2.790 (2.810)	2.082** (1.251)	2.403** (1.243)
Constant	-12.07 (7.915)	-63.07* (18.17)	-18.02* (5.854)	-17.29* (5.747)
Test to the total insignificance of variables in the model	$\chi^2=121.32$ p-value=0.000	F=8.43 p-value=0.000	$\chi^2=139.46$ p-value=0.000	$\chi^2=150.29$ p-value=0.000

Wald Test for significance of individual effects in FE	-	F=4.39 p-value=0.000	-	-
Sargan-Hansen Test	$\chi^2=19.347$ p-value=0.0017	-	-	
Wooldridge Test for autocorrelation	-	F=26.708 p-value=0.000	-	-
Modified Wald heteroscedacity test	-	$\chi^2=460000$ p-value=0.000	-	-

Note: Significance levels: \*  $p < 0.05$ , \*\*  $p < 0.1$ . In brackets standard deviations of coefficients were given.

Table 2. *Model estimation results*

The exercise shows that except ROE, all variables affect the disclosure index as expected. At 10% significance level, ROE, the logarithm of sales and the auditor category have a statistically significant impact, the constant being of some significance too.

## CONCLUDING REMARKS

Considering the estimation findings presented in table 2, two of the hypotheses presented earlier should be rejected. The financial leverage and the shareholding dispersion do not have any statistically significant effect on the extent of corporate information disclosure within the research sample. Hence, the intention to satisfy creditors' information needs and to increase the dispersed shareholders' sense of control seem not to influence information disclosure decisions in non-financial companies. The findings are consistent with the studies published by Raffournier (1995) and Michad'lesco (1999). Similarly, as in our exercise, neither the Swiss nor the French analyses confirmed the impact of the shareholding dispersion or the financial leverage on the extent of information disclosure.

The exercise results supported the hypothesis regarding the impact of company size or the audit firm category on the extent of information disclosure. The logarithm of sales approximating company size has a positive, statistically significant effect on the disclosure index. Attention should be given to the fact that major companies have larger financial and accounting departments as a rule, as well as better qualified staff and these factors may have a positive impact on the extent of information disclosure. Furthermore, preparing detailed reports is less costly for major companies, as they typically collect such data for their internal purposes, regardless. It should also be noted that smaller companies are less motivated to reveal their activities, fearing that the competition might take advantage of such information. These findings are consistent with the conclusions drawn by other researchers. The

statistically significant, positive correlation between company size and the scope of disclosure was confirmed by Meek *et al.* (1995), Huang *et al.* (2011), Larran and Giner (2002), Marston and Polei (2004), as well as Raffournier (1995), who approximated this determinant by the logarithm of revenue from sales, similarly as we ourselves.

Furthermore, the analysis of the estimation findings shows that the average disclosure index was by 2.4 percentage points higher among companies audited by the “Big Four” firms as compared with companies audited by other providers of such services. This supports the thesis presented earlier. With the strict quality requirements imposed by the “Big Four” firms on financial reporting, the scope of information disclosed there is greater. Besides, it should be noted that the analysed period covered the first three years following the introduction of compulsory reporting under IFRS for public companies. Therefore, the role of an audit firm might be even more significant. The renowned “Big Four”, with their better trained staff and experience in the application of IFRS could provide more effective support to their customers, as far as disclosure required by the standards was concerned.

The results of the estimation show that the company profitability measured by ROE has a statistically significant impact on the extent of corporate information disclosure. It should be noted, however, that the correlation failed to occur in the direction expected. These findings correspond with the conclusions drawn by Huang *et al.* (2011) – the authors demonstrated a negative impact of ROE on the transparency of Taiwanese companies. Both Taiwanese and Polish investors, when analysing financial statements focus largely on company bottom lines, paying less attention to any other information. Hence, companies generating more profit will not find it necessary to disclose much information, since they are attractive to investors due to their financial performance. Managers, therefore, are less motivated to present a company’s standing in a more detailed manner when a satisfactory profit is being generated. The study has proved that the companies covered by the analysis decided to disclose more when their profitability was lower. It is common practice among Polish firms to increase the extent of disclosure upon a decline in financial performance to assuage shareholders, particularly if earnings are insufficient to justify the payment of a dividend.

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## BIOTECH SPIN-OFFS IN POLAND: ESTABLISHMENT STRATEGIES AND THE IMPACT OF TECHNOLOGY AND SCIENCE PARKS ON GROWTH OPPORTUNITIES

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### ABSTRACT

The article presents the analysis of establishment, financing strategies and determinants of growth opportunities of biotech spin-offs in Poland. The research sample comprises of all biotech spin-offs listed on the stock exchange in Poland (12 companies), 5 of them being headquartered in Science and Technology Parks (STP's). The analysis included spin-offs area of activity in bioscience, critical assets (patents) (Levin et al., 1987; Pénin, 2005), skills and abilities of management board (Colombo and Grilli, 2005; Bureth et al., 2010), form of leaning used at the stage of the seed stage of the company's life cycle (university / industry cooperation, research institute / industry cooperation, intellectual human capital) (Jaffe et al., 1993; Powell et al., 1996), sources of financing, including seed capital and venture capital (Niosi, 2003; Lee and Dibner, 2005). The analysis includes computation of the financial leverage, the time of inability to generate positive ROE, EVA and the growth opportunity for the examined spin-offs. In order to examine the role of STPs in development of biotech spin-offs, the growth potential of spin-offs set in STP's was compared with that of companies operating outside STP's, using ANOVA test. The paper diagnoses the facilitating role of Science and Technology Parks in the biotech spin-offs growth and commercialisation of their research findings (Audretsch and Feldman, 1996; Löfsten and Lindelöf, 2002; Colombo and Delmastro, 2002; Pelle et al., 2008; Albahari et al., 2013). The analysis shows that the biotech spin-offs based in STP's are insufficiently prepared to maintain the sales volume over a long period of time, although they enjoy better growth opportunities than those being set up outside STPs. A mismatch between the STP's offer and the needs of spin-offs was observed, the latter being concentrated on R&D, instead of following the "born global" strategy in the process of innovation commercialisation.

**Keywords:** *biotechnology, spin-offs, technology and science park, commercialisation, entrepreneurship, life cycle, business model*

## INTRODUCTION

Europe needs more new enterprises and more innovation. Sustainable growth based on innovation and excellence requires an increasing number of start-ups as well as spin-offs, which are likely to provide more and better jobs. The flagship initiative 'Innovation Union' aims to form better links between research and development (R&D), innovation and job creation, which is crucial if Europe is to recover from the current economic crisis. Each euro invested in EU research leads to an increase in industry added value of between €7 and €14, while spending 3% of the EU's GDP on R&D by 2020 could create 3.7 million jobs and increase annual GDP by close to €800 billion by 2025 (European Commission, 2013).

Innovation centres are playing significant role in the expansion of innovations spin-offs, including Science and Technology Parks, stimulating and managing the flow of knowledge and technology between universities and companies. Aspects considered in the study include establishment strategies of biotech spin-offs listed on the stock exchange in Poland (main and alternative markets), sources of financing spin-offs activity and their profitability, financial leverage, and growth opportunities. We shall examine the facilitating role of Science and Technology Parks in biotech spin-offs growth, and the commercialisation of their research findings. The analysis will include verification of a hypothesis that biotech spin-offs based in STP's are better prepared to break into the market and maintain their sales volumes, while enjoying better growth opportunities than spin-offs set up outside STP's.

## BARRIERS TO DEVELOPMENT OF THE BIOTECHNOLOGY SECTOR IN POLAND

Currently, the development of biotechnology is in its infancy in Poland and the biotechnology market is growing slowly. While the scientific potential is huge, a system for transferring new solutions to the market is lacking. The innovative nature of the biotechnology sector translates into a high demand for funding and high risk levels, both factors impeding the sector's growth. In 2011, groups of entities active in the field of biotechnology represented comparable shares, with governmental institutions and private non-commercial institutions together as one category, and companies as another one, each accounting for 33.8%, with the academic sector taking 32.4%, although intramural expenditures of governmental and private non-profit institutions prevailed (50.5%) against companies (15.5%). In 2011, pure research work prevailed in biotechnology R&D and was carried out in 86% of entities in the government sector (together with private non-commercial institutions) and the academic sector, while industrial research activities took place in 68% of them, and development work in 59%. There is more focus on basic research in the academic sector than in the sector of governmental and private non-commercial institutions, with a markedly low level of applied research funding, while the latter is a

basis for co-operation with the industry (GUS, 2012). This may be connected with the low efficiency of technology transfer institutions, including 5 Science and Technology Parks focusing on biotechnology. In 2013, there were 54 STPs at various levels of development in Poland, 5 of them incorporating biotechnology companies.

Research and development activities in the field of biotechnology are mainly financed by the government sector (57-62%, far above the EU average). Funds from foreign sources supported 31.5% of biotechnology R&D, almost 2.5 times higher than their overall share in R&D expenses in Poland. The corporate sector contributed only 10.8% of R&D financing in the field of biotechnology. Only 35% of analysed entities sought patent protection in 2011, being eventually granted to 23% of applicants (GUS, 2012). A severe limitation to the expansion and maturation of the biotechnology industry is the availability of seasoned entrepreneurs and team members who understand what it takes to establish and grow successful life science companies (Shimasaki, 2009).

## **SURVIVAL AND GROWTH FACTORS IN THE FIELD OF BIOTECHNOLOGY – A LITERATURE OVERVIEW**

The sector of biotechnology is characterized by its tight links to science and innovation, being necessarily capital-intensive and challenged by the risk to successful commercialisation of the research outcomes, and to the newly-established biotechnology firm's survival on the market. Studies on biotechnology start-ups in France, as well as analyses of 60 specialised biotechnology firms in Canada, have shown that business success in this field depends mainly on three key factors: human, social and physical capital (Niosi, 2003; Bureth et al., 2010). A biotechnology firm's human capital which determines its chances of maintaining operations belongs to the company founders. The "quality", size and motivation of the founding team and the management board are important (Bureth et al., 2010). Board members' academic qualifications in the field of biotechnology and their managerial experience are found to translate into the highest rate of company growth (Colombo and Grilli, 2005). This is when both scientific and economic interests are represented in sufficient proportions in the company and both aspects are developed equally. Often in the biotech sector the company founding team consists solely of scientists who start a business in order to commercialise their invention for the benefit of society at large, or to gain better access to sources of research finance other than public funds (Bureth et al., 2010). Regrettably, such companies are unlikely to succeed on the market. Founders' age, education and professional experience are positively correlated with the company's chance to survive and grow, since experienced founders have a better perception of information value and the ability to translate information into the commercial context. On the other hand, older and more knowledgeable employees are less interested in setting up their own business since the

alternative cost of self-employment may be prohibitive for them (Evans and Leighton, 1989). There seems to lay a paradox - young people, while more willing to take the risk involved in such an initiative, do not have the skills necessary to succeed on the market (Niosi, 2003). Company credibility has been found to increase if there is a so-called “star-scientist” in the team of its founders (supervisory board) (Zucker et al., 1998), - the “star-scientist” concept referring to leading personalities of the science world, reputable authors of numerous publications who leave their academic work to start a company (or are involved in both activity pathways concurrently). An individual like this, apart from their contacts with the academic world, offer up themselves as a “brand” attracting business partners to collaborate with the company. In summary, the founding team’s composition and aspirations are key to biotech start-up development.

Furthermore, physical capital and intangible assets, including patents (considered to be the most valuable assets of any biotechnology start-up), are crucial to a company’s survival and growth (Federal Trade Commission, 2003). Patents are a biotech start-up’s guarantee of credibility (Levin et al., 1987), a symbol of company competence (Pénin, 2005), which, along with the reputation of the business founders, is a demonstration of company potential. Furthermore, patents facilitate funding for example venture capital finance (Niosi, 2003). The biotechnology company social capital is the third element determining its survival on the market, enabling it to build a network of relations and collaborate with potential partners, in both scientific and financial circles (Powell et al., 1996).

## **PHASES IN DEVELOPMENT OF BIOTECHNOLOGY SPIN-OFFS. SOURCES OF FINANCING**

The bioscience industry is changing rapidly. Companies active in the bioscience industry are facing new challenges and need to discover new business models. Old established structures are likely to be replaced with more innovative and network-based models spanning between the public and private sector. This change creates a demand for people capable of bridging the gap between bioscience research and business creation, and for individuals capable of identifying new business models. Below we shall look into the life cycle of biotechnology spin-offs (or “starbursts” as sometimes referred), as well as the sources of financing various phases of their development and stages of research findings commercialisation (from invention to innovation). Research spin-offs are a tool for combining knowledge with business. In the instance of biotechnology, academic spin-offs prevail, as a demonstration of academic entrepreneurship. Businesses of this type are set up by scientists working at universities or other scientific institutions, or by students or graduates. The purpose of setting up a spin-off is to commercialize scientific solutions. As a rule, spin-offs are dependent on the parent



company, through a licence to use certain knowledge and/or through company shares acquired by the parent company in exchange for intellectual property rights.

On the basis of literature (Lipman, 1998; European Investment Fund, 2011) four major phases of company development have been highlighted: the seed stage, the start-up stage, the expansion stage and the replacement. According to the innovation life cycle, the pre-seed phase has been distinguished, additionally, to include the embryonic stage of research usually carried out at universities or research institutes and financed under these institutions' statutory activities, or based on Government and/or EU research grants. In the case of biotechnology, the seed stage requires an intensification of research work and continual collaboration with universities, but, conversely, this is when an idea of a product or service emerges and a spin-off company starts as a commercialisation tool. This is often the pre-clinical testing phase in biotechnology. Both the seed stage and the early stage are start-up phases, when product launch takes place, along with the commencement of manufacturing and sales operations.

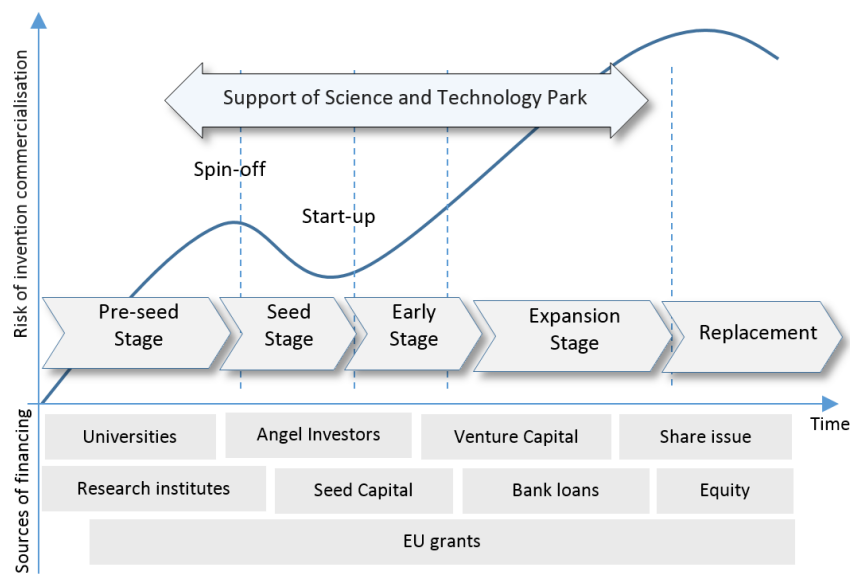


Figure 1. *Spin-off's life cycle and sources of financing*

Seed Capital, a.k.a. Proof-of-Concept Capital, is the first significant round of capital raised. This money allows the company to move the business forward, initiate or advance product development, expand market research, hire consultants, and, in some cases, hire the first employee. A Venture Capital investment comes with much more than just cash. Good VCs come with valuable expertise, contacts, and help in guiding a business through growth, development, and market challenges (Shimasaki, 2009).

Venture capital financing substantiates the company credibility, while strengthening its position on the market, enabling it to establish co-operation with bigger entities, such as major corporations, and

to attract other investors (Niosi, 2003), including institutional investors, when shares are issued. Out of our sample of biotech spin-offs, 3 used venture capital financing: Genomed, Bioton and Braster (Tab. 3).

Alliances of biotechnology businesses with pharmaceutical corporations may be mutually beneficial if set up at the right time. Businesses may obtain financial support, make use of the corporations' experience and competence in manufacturing, trading and clinical testing, while corporations may gain access to state-of-the-art technologies. (Bureth et al., 2010). In Poland, Mabion can be referred to as an example of a spin-off set up by a consortium of pharmaceutical companies (Tab. 3). Informal contacts play a significant role in attracting both investors and research support as they enable the redress of the information asymmetry between businesses and potential investors or partners (Shane and Cable, 2002).

The example of spin-offs established by academic scientists or physicians among the analysed companies are: Selvita, Stem Cells Spin, Biomax, Blirt, Ecotech Polska and Read-Gene (Tab. 2). Start-ups that begin by spinning off from larger companies can instantaneously raise money because of the credibility that comes with the existing staff and advanced products in development. These spin-off groups can self-form from within the larger company and voluntarily leave, or, they may be motivated to leave by an impending layoff.

At the expansion stage, production is intensified and marketing expansion occurs. Having stabilised its financial standing, a biotech company is able to raise funds for its R&D work through a public issue of shares, as well as equity earned, or bank loans resulting from financial credibility and credit capacity.

Besides financial support, a variety of organisational solutions has been developed for the biotechnology sector with the intention of improving the transfer between science and business, including technology transfer centres, science and technology parks, biotechnology clusters and public & private partnership.

## **IN SEARCH OF BIOTECH SPIN-OFFS' BUSINESS MODELS IN POLAND**

Below, we shall look into the business models of Polish biotech spin-offs, the so-called starburst companies, listed on the stock exchange mainly within the alternative trading system, in order to confront their resources with the success factors identified in the literature of the subject, e.g. Niosi (2003) and Bureth, et al. (2010). The research sample is composed of all (12) listed biotech spin-offs out of 26 biotechnology companies listed on the Warsaw Stock Exchange and traded on the main and alternative market in the years 2005-2012. Most of their products or services are applied in medicine (75% together with medications). 25% of the companies are located in the capital city of Warsaw,

although there are no biotech-focussed science parks there. This indicates that the proximity of key universities and research institutes plays a more important role in this area. 75% of biotech spin-offs have patents approved or pending. In 58% of these companies, the management staff have managerial skills and, usually, a track record of managerial experience gained in pharmaceutical companies (Tab. 1). The biotech research work carried out by the university sector in Poland is mainly based on nanobiotechnology (54% of entities), bioinformatics (47.5%) and biotechnological processes (45%). In the corporate sector, the lowest shares of nanobiotechnology, bioinformatics, as well as genes and RNA vectors are recorded: 16%, 17% and 19.4% respectively (GUS, 2012). Yet, it is largely due to niche technologies that the spin-offs composing our research sample, and listed in Table 1, gained a competitive advantage and raised funds for R&D through a public issue of shares on the stock exchange.

Area of activity in bioscience	Medicalg o rithmics	Pharmen a	Genome d	Bioton	Braster	Mabion	Selvita	Stem Cells Spin	BioMax	Blirt	Ecotech Polska	Read- Gene
services							R&D				x	x
medicaments		x		x		x						
medicine	bioinfo r matics		genes		x			stem cells		genes		chemo preven tion
skin cosmetics		x		x				x	x			
supplements		x		x					x			x
P- patents, AP - patent applications	P	P	-	P	AP	-	P	P	-	P	AP	P
Skills and abilities of management board	M	M	R	M, CG	M	R	M	M	No	M	R	R

Note: M – managers, R - only researchers, CG - capital group, No - non-specialist

Table 1. *Characteristics of biotech spin-offs listed on stock exchanges in Warsaw – main and alternative markets*

Considering how fast research developments are progressing in knowledge-based biotech companies, a close contact with external centres of knowledge, understood as active collaboration, is crucial. However, geographic location is an equally important aspect of this proximity (Gambardella, 1995). Company location near the source of knowledge – universities, institutions of science, research and development - as well as collaboration with them, has a positive impact on the company (Jaffe et al., 1993). 75% of Poland's biotech spin-offs co-operate with universities or research institutes (Tab. 2). Geographically, biotechnology companies concentrate around knowledge centres. Technology parks are set up in areas with a high density of high-tech start-ups with businesses often merged into clusters, this process being conducive to their development (Audretsch and Feldman, 1996). In Poland, 42% of biotech spin-offs operate in Science and Technology Parks (Tab. 2). The Life Science cluster in

Krakow is home to Selvita, a company specializing in R&D in the field of chemistry, biotechnology and pharmacology. The transfer of knowledge from the points where it is collected to the those of commercialisation play a vital role in biotechnology – explicitly, this division of the sector is the least developed in Poland, impeding the growth of university biotech spin-offs (Tab. 2). According to Niosi (2003), the network (social capital) should incorporate such entities as: science and research institutions, investors (mainly venture capitals) and major corporations. Networks of co-operation with such characteristics have been developed by fast growing biotech spin-offs, such as Medicalgorithmics, Pharmena, Genomed, Bioton and Braster (Tab. 2 and 3).

Form of used leaning on the seed stage of the company's life cycle	Medicalgorithmics	Pharmena	Genomed	Bioton	Braster	Mabion	Selvita	Stem Cells Spin	BIOMAX	BLIRT	ECOTECH Polska	Read-Gene
<b>Establishment date</b>	<b>09.2005</b>	<b>11.2002</b>	<b>09.2007</b>	<b>08.1989</b>	<b>2008</b>	<b>03.2007</b>	<b>2007</b>	<b>2009</b>	<b>03.2010</b>	<b>12.2008</b>	<b>09.2007</b>	<b>08.2005</b>
University-industry cooperation		X			X		X	X	X	X	X	X
Research institute-industry cooperation				X								X
Intellectual human capital - Star-scientist	X		X	X	X	X	X					
Science and Technology Park						X	X	X	X	X		

Table 2. Profile and establishment strategies of biotech spin-offs

The biotech industry is in great need in several areas: seasoned biotechnology leaders who have the knowledge, wisdom, and desire to lead others to accomplish something greater than they themselves alone can achieve; patents or licences for the determined technology; and the ability to form a net of contacts with those preeminent in the world of science (including star-scientists), investors and other partners. This industry needs strong, value-based leaders and teams of individuals who have vision for the future of medicine, and will help usher in changes that genomics, proteomics, molecular biology, and personalized medicine can bring to human health (Shimasaki, 2009, p. ix).

	Medicalgorithmics	Pharmena	Genomed	Bioton	Braster	Mabion	Selvita	Stem Cells Spin	BioMax	Blirt	Ecotech Polska	Read-Gene
Seed capital	X											
Venture capital	X		X	X	X							
Consortium						X						
Foreign relations	X	X		M&A								
Entry on NC stock exchange	11. 2011	08. 2008	05. 2011		2012	08. 2010	07. 2011	08. 2011	05. 2011	03. 2011	11. 2011	02. 2009
Entry on GPW stock exchange	02. 2014	-	-	03. 2005	-	04. 2013	-	-	-	-	-	-

capital ties	0,25	0,71 4	0	0	0,33	1	1	1	0,67	0	0,5	0,33
grants	1	1	1	1	1	0,6	1	0,5	0,33	0,75	0,25	0,83
loans & credits borrowed repayed	1	0,43	0,5	0,875	0,67	0,4	0,75	0	0	1	0,25	0,67
	1	0,14	0	0,625	0,67	0,4	0,75	0	0	0,75	0	0,67
	0,75	0,14	0,5	1	0,33	0,2	0,25	0	0	0,5	0,25	0,17
financial leverage	11%	11%	20%	25%	43%	7%	26%	12%	2%	42%	2%	34%
negative ROE	0,25	0	0,5	0,5	0,33	0,4	1	0,75	0,67	0,25	0,25	0,33
negative EVA	0,25	0,43	0,5	0,5	1	1	1	1	1	1	1	1
average growth opportunity**	482% sale> 2.5mln €					1103% sale> 0.75mln €				960% sale< 0.5mln €		518% sale< 0.25mln €
ANOVA of growth opportunities	Spin-offs out of Science and Technology Parks	average	varianc e	Spin-offs set in Science and Technology Parks	average	varianc e	MS <sub>B</sub>	MS <sub>w</sub>	test F	p-value		
		1,32	20,09		5,07	127,23	133,1	54,06	2,46	0,12*		

Note: \* difference of means is significant ( $p < 0.15$ ); MS<sub>B</sub> - Mean Square Between groups; MS<sub>W</sub> - Mean Square Within groups

\*\* The average growth opportunity presented in Table no. 3 was measured as a mean in relation to the change in sale between years  $t$  and  $t-1$  divided by the amount of sales in the previous year ( $t-1$ ). The results calculated on the basis of annual financial statements.

Table 3. Sources of financing spin-offs activity and their profitability, financial leverage and growth opportunities

Venture capital finance is an important step in developing most biotechnology companies in the world, especially in the USA. Typically, businesses use this type of funding from their inception through to their initial public offering (Lee and Dibner, 2005). In the case of European companies, this period is around 5.5 years (5 years for American firms) (Bains, 2006). Out of our sample of biotech spin-offs, 3 used venture capital financing, one obtained seed capital and one was set up by a consortium of four pharmaceutical companies. Since 2011, interest in early stock exchange debuts of biotech companies has been observed to grow. Yet, analyses have revealed (Bains, 2006) that biotech companies that were provided less financial support before their stock exchange debut were priced lower at their initial public offering than those who received more funding. There are two ways to attracting investors through a public issue of shares. Since 2007, small and medium enterprises may use NewConnect (NC), the alternative stock exchange market, while major companies are traded on the main market of Warsaw Stock Exchange. NewConnect was set up for young companies with a high potential for growth, innovation being the most characteristic of their common features. Bioton was the only company from the research sample which did not seek financing at NC, but issued its shares after reaching the maturity phase (16 years after company establishment) in March 2005, before the alternative trading market was set up. On average, biotech spin-offs go public on the alternative

market 4 years after their founding, but companies residing in Science and Technology Parks issue their shares sooner, typically after 3 years. Two of the fastest growing biotech companies (high potential of growth with sales exceeding PLN 3 million, i.e. EUR 0.75 million), Mabion and Medicalgorithmics, managed to satisfy the main stock market's requirements just 2.5 years after their debut on NC.

Government and EU grants are of key importance to financing pre-clinical tests and commercialisation of innovative solutions developed on the basis of spin-offs' inventions. Half of the companies composing the research sample obtained research grants in the whole period covered by the analysis, while others used such subsidies on an average level. Non-repayable assistance funding enables spin-offs to cover the high cost of analyses, examinations and clinical tests, as well as to prepare a strategy for patenting and commercialisation. The significant share of grants in financing results in reduced financial leverage ratios (long+short debt / total assets), accounting for 20%, on average. Grants are a non-repayable, virtually cost-free source of financing, as opposed to loans and credit. Using grants in R&D, financing reduces the weighed average cost of capital (WACC).

Moreover, considerable financial support was provided by affiliated companies, in the form of trade credits (trade liabilities) or loans throughout an average 48% of the analysed period (measured in years). Accounts payable to affiliated companies represented a regular source of financing for 33% of the analysed companies (a regular item of the financial engineering reflected in the balance sheet liabilities). Despite the low financial leverage, biotech spin-offs were financing their businesses with bank loans – mainly short-term – throughout 42% of the analysed period, on average. This might be attributable to the need to credit R&D activities prior to the grant payment, or in the period of delays in payment of grant tranches. Table 3 presents the share of years with negative ROE and EVA ratios throughout the period of the analysis. All spin-offs in the research sample, except Selvita which operates in the Science and Technology Park, managed to achieve a positive value of ROE after more than half of the analysed period, whereas only 4 of the companies generated some shareholder value throughout the first half of the analysed period, measured by the Economic Value Added ratio (EVA) (Sarapriya Ray, 2012). From the point of view of this paper's conducted analysis, importance is the ability to gain positive EVA by more mature biotech spin-offs (only 4 from 12 analysed). In order to examine the role of Science and Technology Parks in the development of biotech spin-offs, the growth potential of spin-offs set in STPs was compared with that of companies operating outside STPs using ANOVA test. At the significance level ( $p < 0.15$ ), growth opportunities differ more between biotech spin-offs located in STPs and those set out of STPs than within these groups of spin-offs,  $MS_B > MS_W$  (Tab. 3). While spin-offs residing in STPs show higher potential of growth on average, owing to higher sales growth rates, this effect is not lasting – it is observed in the first year following successful

commercialisation of an innovative solution, with a significant drop of sales in the following year. This may result from an incorrect market assessment or the inability to maintain sales volume by making use of adequate distribution channels and providing after-sales service, or finding an alternative application for the patented solution.

The innovation of biotechnology requires considerable expense on research and development work which can be burdened with the risk of failure and implementation of production and sales strategies. To this end, active, relatively young entities in the early stages of establishing their credit history and dealing with research-developmental activity in the area of biotechnology, seek sources for funding research on the alternative floor of the stock exchange, e.g. NewConnect. Often, these fledgling biotechnological companies still don't possess a credit rating as they are at this point generating losses, ruling out the use of credit. Moreover, what subsidies are granted are earmarked for specific projects and with the company receiving the funds in tranches, provided a previous stage of the project schedule has been carried out. This does not give companies the freedom to manage these funds at their own discretion unlike those generated from the issuing of shares on the stock exchange.

Thus, the means of financing R&D activity with the help of a share premium seems preferable for young companies whose potential has yet to be reflected in financial results, but is nonetheless noticeable to investors. Issuing shares of innovative companies is facilitated by the alternative market of the NewConnect aimed at young innovative enterprises with limited sources of finance. Poor financial results of young biotechnological companies could be explained by their intense R&D activity. However, stock exchange investors believe in the potential of these companies giving rise to their high share premium.

## **THE ROLE OF SCIENCE AND TECHNOLOGY PARKS IN FACILITATING SPIN-OFFS ENTREPRENEURSHIP**

As provided for in the united Europe development strategies, Poland is developing specialised entities that provide active support to innovation and entrepreneurship. The largest group (62%) (Bąkowski and Mażewska, 2012) comprises single-function initiatives: training and consultancy centres, financial institutions, academic incubators, technology transfer centres, i.e. entities that do not have the infrastructure and competences required for supporting all phases of the innovation process, from pure research, through development and implementation activities involved in commercialisation. As far as biotechnology is concerned, business incubators are useful mainly in the phase of basic research, which does not require any specialist equipment needed for pre-clinical testing and preliminary production. On the other hand, Science and Technology Parks are multifunctional by their nature as initiatives supporting innovation and are therefore best predisposed

to facilitate commercialisation of biotechnology research findings. According to the International Association of Science Parks (IASP, 2002), the main tasks of STPs include: facilitating the processes of incubation and development of innovative, knowledge-based spin-off and spin-out mechanisms, facilitating and managing the flow of knowledge and technology between universities, research and development institutions, companies and other market players, as well as supporting the process of building companies' value through offering them facilities, research infrastructure and specialist, high quality services. Empirical studies of STP's performance worldwide focus mostly on analyses of the demand side, i.e. residents, and on attempts at evaluating the impact of support provided by the park on companies' collaboration with research institutions, market entrance, sales growth, profitability and employment (Löfsten and Lindelöf, 2002; Colombo and Delmastro, 2002; Albahari et al., 2013; European Commission, 2007). These studies often resulted in contrasting findings as regards the support provided to the commercialisation of research findings. Empirical studies of Science and Technology Park's influence on development and innovation of their resident companies in Poland (Pelle et al., 2008) show that decisions to locate businesses within a park are made largely due to low rent, hope for the park's assistance in obtaining funding, as well as access to the park's technical infrastructure. A little less than half of companies find the impact of parks on their growth significant. An analysis of the criteria companies use when choosing a location in a technology park reveals that they are unaware of what type of support they should expect from parks and that they do not follow the "born global" thinking strategy. At the stage of starting a spin-off, it is not sales, but research and development that the core business is comprised of. Inventors lack business skills and managerial competence and do not consider the expansion stage. The inspection conducted by the Supreme Audit Office to examine the implementation of innovative solutions at selected Science and Technology Parks in Poland (NIK, 2012) revealed that the effectiveness of assistance provided to tenants is measured by the mix of tenants, the number of solutions implemented and patents obtained, the assistance in gaining access to new technologies, and the collaboration with financing institutions and institutions of science.



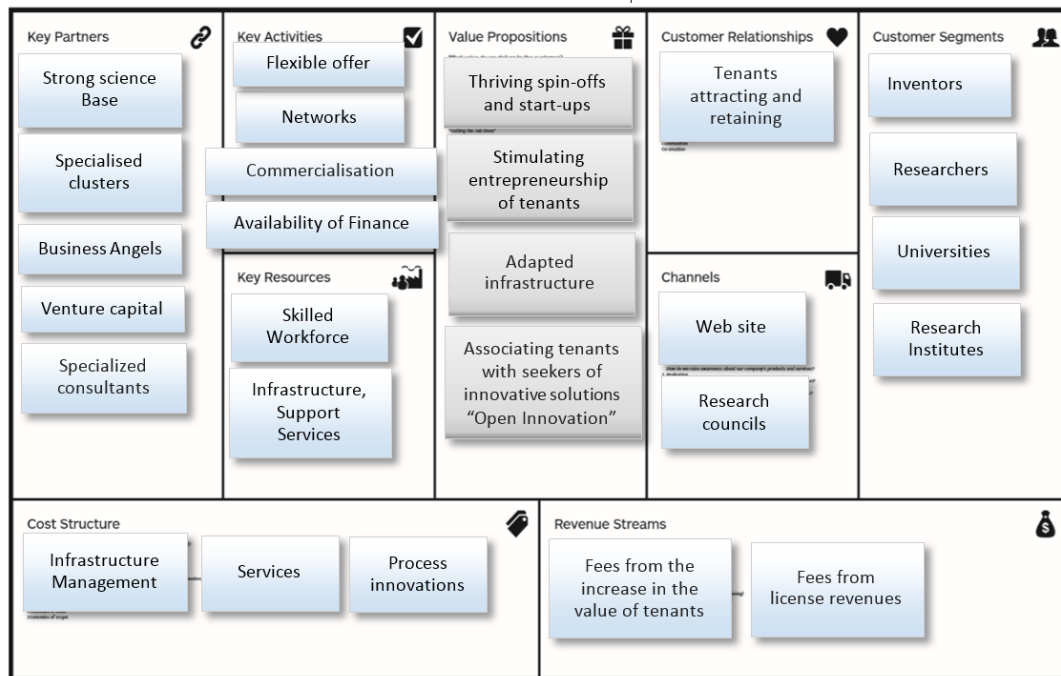


Figure 2. Business model for successful Science and Technology Park

Such a structure of the system used for the evaluation of parks' performance and tenants' expectations seems to demonstrate that there is a mismatch between the demand and supply aspects of the support initiatives and a gap which impedes the parks' pursuit of their mission on the one hand, and the creation of tenants' long-term business value, on the other. Based on the biotech spin-offs analysis, a conclusion can be drawn that this gap should be closed by tailoring the strategies and processes offered by the STPs and customising their activities and services to their tenants' needs not only in the start-up stage, but at the expansion stage as well. Figure 2 illustrates a business model proposed (Osterwalder and Pigneur, 2010) for a Science and Technology Park, with customer value propositions over an extended period, with some basic assumptions of how the STP should create, capture and deliver value. The analyses of biotech spin-offs headquartered in STPs show that businesses are not given the support that would help them break into global markets. The STP's offering available in Poland does not include any business-related education for the biotechnology sector, in particular Brand Management, Organisational Behaviour (communication, creativity, quality improvement, individual effectiveness and development, leadership, and inter-group behaviour) or advanced courses of Patent and Innovation Engineering. The development of STP's supporting innovation-based companies in the biotechnology sector may become key to the biotech industry's growth in Poland and should be based on a win-win strategy. Building this type of relationship requires a modification of the evaluation system and the criteria used for measuring the performance of both parks and their tenants alike.

## CONCLUSION AND DISCUSSION. FUTURE RESEARCH

Analyses of biotech start-ups have shown that business success in the field of biotechnology depends mainly on their human, social and physical capital (Niosi, 2003; Bureth et al., 2010). Board members' academic qualifications in the field of biotechnology and their managerial experience are found to translate into the highest rate of company growth (Colombo and Grilli, 2005). The analysis of biotech spin-offs listed on the stock exchange in Poland (5) located in STP's versus 7 spin-offs out of STP's indicated an important role of STPs in facilitating growth opportunities through the commercialisation of research findings, but only over a short time and at the early stage. Polish biotech spin-offs based in STPs are insufficiently prepared to maintain sales volume over a sustained period of time, although they enjoy better growth opportunities (measured by sales growth) than those set up outside STP's. The performance may depend on various factors determining the development of spin-offs, including access to sources of financing, managerial competence, the area of activity, competition and market analysis, etc. However, STPs should facilitate preparation for market entry and the development of a lasting competitive advantage – as specified in their mission. The situation seems to suggest a mismatch between the STPs' offering and their tenants' needs at the latter stages of their development and throughout the entire process of commercialisation.

Further studies are intended to identify the factors closing the gap and the mismatch between the services offered by Science and Technology Parks specialised in the field of biotechnology and their tenants' needs. The purpose will be to develop a measurement system which will take into account the impact of STP's tenants development at the expansion stage and will enable the evaluation of commercialisation processes in terms of their long-term effectiveness and efficiency based on quantifiable categories. An approach as this is critical from the perspective of spin-offs development and the entire biotechnology industry in Poland, while also contributing to a revision of the Science and Technology Parks strategy in Poland, as, while the inflow of funding from EU grants decreases, the share of innovation-based companies is similarly declining, too (33% in 2011).

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## ENERGY TRADE AND TAX EVASION IN THE OIL SECTOR IN GREECE

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### ABSTRACT

In Greece, many are those who assert that tax revenues of hundreds millions of euro a year are lost by the Greek government from illegal activity such as in fuel trading, arguing that tax evasion and fraud affect both public revenues and healthy companies. Experts say that specifically fraud, piracy, incomplete deliveries to consumers, lack of transparency, the limited fraud inspections, delays in sentencing, fictitious exports, the lack of controls for maintaining buffer stocks substantially all arise from the lack of proper control mechanisms set by public authorities (Georgakopoulou, 2012).

The paper aims to assess the structure, size and impact of tax evasion and fraud, and measure and analyze the reasons responsible for the high rate of shadow/black economy in the trading of fuels in Greece. The methodology to be used will be based on questionnaire survey research on a random sample / structured interviews of market participants. Accordingly, preliminary results from the questionnaire survey are presented. The shortage of academic research renders additional value to the topic, particularly in a period characterized by the prospect of drilling substantial offshore oil and gas reserves in the Eastern Mediterranean and Greece.

**Keywords:** *Energy trading, shadow economy, corruption, energy sector, business ethics, Greece*

## INTRODUCTION

The shadow economy is a multifunctional economic and social phenomenon with various and serious consequences in many aspects of the everyday life (economic, political, social, etc.).

José Manuel Barroso, the President of the European Commission, on May 23rd, 2013, welcomed the commitment at European Council to make progress on energy policy and tax evasion and fraud. On energy policy, the President Barroso welcomed the fact that there was support for the Commission's approach for what he called a no regrets scenario, with action in five areas: completing the internal energy market; investing in innovation and infrastructure; committing to greater energy efficiency; exploiting renewable sources more cheaply and diversifying supplies." Tackling on tax evasion and fraud, he stressed that "it is also about fairness because we estimate €1 trillion lost each year to tax evasion and avoidance, the equivalent of a year's health spending across all member states" (European Commission, 2013).

Further, indicatively, in academic literature, the subjects of energy prices, size of shadow economy, energy policy and corruption and their interactions, have also been studied extensively, e.g. Suslov and Ageeva (2009); Fredriksson *et al.* (2004); Balmaceda (2008).

The current working paper consists of the major part of research project which, among other also objectives, aims exactly to assess the structure, size and impact of tax evasion and fraud by covering different aspects of the energy sector in Greece, such as the trading of fuels, or the impact of tax evasion in attracting foreign direct investments in the sector. The objectives of the wider research study are briefly presented in the next section. Respectively, various proposals to the Greek Government are expected to be addressed at the finalization of the research, to curb undeclared and illegal practices and to ensure and foster a more healthy competition within the sector.

The main focus of the current paper is toward introducing, assessing and analyzing the reasons responsible for the high rate of shadow / black economy in the trading of fuels in Greece. Accordingly, the size of tax evasion in the energy sector and the impact of tax evasion in Greece are discussed in the second and third sections. The methodology used is based on questionnaire survey research on a random sample / structured interviews of market participants in the energy trading sector, and is discussed in the fourth section, followed by the expected contribution and uniqueness of the research in the case of Greece. Preliminary results from the questionnaire survey are presented in the last section. The shortage of academic research renders additional value to the topic, particularly in a period characterized by the prospect of drilling substantial offshore oil and gas reserves in the Eastern Mediterranean and Greece.

## OBJECTIVES OF THE RESEARCH PROJECT

As aforementioned, the paper consists part of a wider research project which aims to:

- Introduce in a theoretical level the reasons of black / shadow economy in Greece, with emphasis on the wider energy sector.
- Investigate and assess via special statistical research (qualitative), the black economy and the tax evasion in the Greek energy sector. Also, an econometric analysis will take place.
- Assess the size of black economy and tax evasion at a sector-based level in the case of energy trading in Greece, and perform a comparative analysis with other sectors.
- Perform a cross-country analysis of the levels and reasons of tax-evasion in energy sector, particularly at a regional level, in South-Eastern Europe and Mediterranean, where many of Greek energy trading partners are located.
- Locate the precise reasons for the appearance of the phenomenon in Greece through the analysis of particular financial, social and institutional frames.
- Assess the impact of tax evasion as a barrier in attracting foreign direct investments in the Greek energy sector.
- Propose structural policies for the effective confrontation of the phenomenon.

## **FRAUD AND TAX EVASION IN THE TRADING OF FUELS IN GREECE**

In Greece, many are those who argue that tax revenues of hundreds millions of euro a year are lost by the Greek government from illegal activity such as in fuel trading, arguing that tax evasion and fraud affect both public revenues and healthy companies. Respectively, the administration of Hellenic Petroleum Company, in its estimates for the price of heating oil, was in favour of equalizing the tax on diesel fuel and heating, aimed precisely to combat fraud (Hellenic Petroleum, 2008). Experts say that specifically fraud, piracy, incomplete deliveries to consumers, lack of transparency, the limited fraud inspections, delays in sentencing, fictitious exports, the lack of controls for maintaining buffer stocks substantially all arise from the lack of proper control mechanisms set by public authorities. Further, it is noted that the existing institutional framework is inadequate to eliminate the barriers in competition and healthy functioning of the market and achieve consumer protection (Georgakopoulou, 2012).

The adulteration of fuel can be divided into two categories: in the case of fraud for profit of the operator and in the case which it happens because of inconsistent management and storage of fuel (e.g. when water or garbage is mistakenly allowed to mix with the fuels). In the first case we refer to the addition of impurities of cheaper fuel with more expensive by the operator with the purpose of gaining from the price difference. Such cases are as follows: a. Unleaded in LRP Super gasoline (with lead replacement of 96 Octane; it is the most common form of adulteration by adding unleaded gasoline with octane substitute (toluene). Also selling unleaded gasoline at the price of super); b.

Unleaded in Super unleaded (100 Octane); c. Heating oil in diesel; d. Shipping oil in diesel; e. Shipping oil in heating oil; f. Petroleum in Gasoline (it was the case in the past, due to cost / taxation differences). The most common fraud cases are the first and the second cases with similar frequencies (ICAP, 2009).

The fraud, according to research usually takes place in the following two ways: a. Mixing two different types of fuel (expensive and cheap), so that the mixture to be sold on the market as expensive; b. Adulterating fuels with other cheaper substances of solvents and waste oils or water. The fraud is usually performed during the transportation of the fuel to the station; also, at the fuels station on above ground or illegal underground tanks. The ways in which this can be performed in the fuels station are as follows: by simply mixing or discoloration and neutralizing the tracer. This is because low taxed fuel containing colored markers to identify more easily if mixed with other fuels higher taxes. Most fuel traffickers have found ways which can neutralize all of the above methods of fraud and their identification.

The alleged fuel exports are also a major problem in addition to fraud. In such cases, the fuels for export are not taxed or simply have low tariffs or transported by tanker ships abroad. Virtual uploads are included to this category (Greek Petroleum, 2008). It is duty free fuel oil which passed illegally in the internal market. The ship, in this case, is not provided at all or sub-provided with a small amount of fuel. The rest returns without tariffs to be used by fuel stations in the internal market. Another case concerns the movement of fuel in the external market. And here is the export dummy fuel where smugglers illegally reintroduce some amount of fuel, adulterated, to be used by fuel stations.

The phenomenon of adulteration and smuggling is maintained by the large differences in the high taxation of various fuels and facilitated by insufficient controls of the state authorities.

Apart from the company with which they are affiliated the operator of a fuel station may be provided with fuels by another dealer or "pirates". The above phenomenon has been investigated in several studies. National Technical University performed a research on lubricants and showed that most of them were pure oil, whereas the rates of illicit fuel identified to be ranging between 7% and 10% (National Technical University of Athens, 2008).

Research also indicated that the diesel figures are even higher, particularly outside of Athens. For example, as regards the illicit diesel the percentage of 15.9% in Athens will have to be translated into a percentage of 30% for the whole Greece, whereas it cannot be rejected that the final percentages are close 40% in Greece. This is because the numbers mentioned above are percentages of irregular samples and when are weighed with the consumption volumes of the fuel stations can reach 40% (National Technical University of Athens, 2008).

The main characteristics of the Greek oil market consist of the monopolistic conditions, high levels of fraud and the existence of a large number of oil stations. Two groups of companies (Hellenic Petroleum SA and Motor Oil Hellas SA) operate four refineries with a total capacity of refining 526,000 barrels per day or 26.3 million tons per year. With continuous investments in modernization and upgrading, the Greek refineries have achieved a high Nelson complexity index. For comparison, the average capacity of European refineries is about 144 mm barrels per day, while the average Nelson complexity index is 7,63 (IHS, 2013). In Greece, the average capacity is slightly smaller at 131 mm barrels per day, but the average complexity index is well above the European average (9.57) (IOVE, 2014).

The Greek refineries have expanded their activities with the vertical integration in the marketing of petroleum products in which occupy a significant market share, which was further extended after the acquisition of two multinational marketing companies who left the Greek market. Thus, the close interactions with the refining industry marketing activity became even more powerful.

According to data from the Association of Oil Marketing Companies (SEEPE, 2013), the oil trading market operates as following:

- 22 marketing companies licensed A with storage facilities and the handling in Greece.
- 29 companies licensed B1 and B2 for shipping and/or air fuel, refuelling facilities in ports and ships and aircraft refuelling stations in 25 airports. Of these, 13 have license type A.
- 34 companies licensed C – i.e. for gas marketing, investments in LPG bottling. Of these, four have license type A.
- 26 companies licensed D – i.e. for marketing asphalt. Of these, seven have a license Type A.
- 1 company licensing pipeline transport engaged in transportation of aviation fuel (Jet fuels) from refineries to Airport "Eleftherios Venizelos".
- Approximately 6,500 stations (of which approximately 500 independent stations, i.e. stations without a labelled marketing company).
- Approximately 1,000 heating oil dealers.
- For the transportation of used fuel pipelines, and about 1,500 public trucks, 350 private tracks owned by the trading companies and 8,400 small private tanks for heating oil distribution.

With a total turnover which approached in 2012 the EUR 12.5 billion the oil marketing sector (companies - members of SEEPE) estimated that generated directly a EUR 486 million of added value in the Greek economy and more than 23,000 jobs. Moreover, the social product of the industry includes: a. taxes related to the sale of products, income taxes and social security contributions; b. staff; c. interest loans; and d. net gains of the business, which have exceeded EUR 4 billion.



## THE IMPACT OF TAX EVASION IN GREECE

Tax fraud and tax evasion are limiting the capacity of the Greek government to raise revenues and to carry out its economic policy. Estimates show that billions of Euros remain often unreported and untaxed, reducing national tax revenues. Decisive action to minimise tax fraud and tax evasion could generate billions in extra revenue for public budgets in Greece and across Europe.

Tax fraud and tax evasion are also a challenge for fairness and equity. Fairness is an essential condition to make the necessary economic reforms socially and politically acceptable. The burden of taxation should be spread more evenly by ensuring that everyone, whether blue-collar employees, multi-national companies that benefit from the single market or wealthy individuals with offshore savings, contribute to public finances by paying their fair share. Fairness and equity also mean creating better and fairer taxation systems.

Particularly, in a single market, like the Greek one, within a globalised economy, national mismatches and loopholes are too easily exploited by those that seek to escape taxation. Indicatively, we can refer to the recent case of "Spanos", the President and CEO of the oil marketing company ETEKA S.A., who was accused in February 2014 for illegal marketing of oil. The defendants, according to the Police, had illegally marketed during the last two years about 4,500,000 liters of shipping oil, and evaded customs duties and taxes that exceeded EUR 3,500,000. Among stakeholders were also owners of service stations, oil company executives and staff of the Ministry of Environment.

As it was stated "the members of the criminal organization were retaining part of the shipping oil that was to be delivered to ships and shipping companies, which was in turn fed into gas stations, where, after admixture with diesel was sent to the market again". The criminal organization cooperated with twelve gas stations in Attica, Greece. An employee in the Customs of Piraeus port informed about forthcoming investigations in the floating instruments available to the company for the movement of marine fuel, thus avoiding potential criminal and administrative penalties.

At the same time the employee of the ministry informed regarding forthcoming investigations as he had "access to information on planned audits of the service or other competent services and knew in advance details of the time and areas where they were to move the audit teams".

The total oil consumption of shipping oil is about 713,000 cubic meters (this volume is sold by all companies in the sector) and according to sources market smuggling in this form corresponds to approximately 20-30%. (Newpost.gr, 23/2/2014; Capital.gr, 2/11/2011).

According to the Professor of Economics at the Aristotle University of Thessaloniki, Dimitris Mardas, smugglers in shipping fuel benefit first of all taxes, since this fuel is supplied to ships free of tax. The smuggling process is based on the so called "slepia", i.e. small tankers which load the marine fuel from refineries, in customs' presence, stating that the amounts are intended for the refuelling of ships. The

losses of the Greek government by the action of the circuit which allegedly guilty of smuggling fuel oil is estimated at EUR 3.5 million. Professor Dimitris Mardas estimates that the total loss from illegal trafficking of fuels approximates EUR 2.5 billion annually (Naftemporiki, 22/2/2014).

On the other side, in an effort to reduce smuggling, the Ministry of Finance proceeded recently to the measure of equalization of excise rates on heating oil and traffic oil, which drastically reduced smuggling, but had significant negative side effects (IOVE, 2013):

- The measure of equalizing excise rates on oil heating and motion seeks to limit smuggling. An additional objective is the increase of public revenues, but as it turned out in practice is not easily attainable.
- The measure has a drastic effect on the heating oil market, as a sharp increase in prices, but delays in the formation of a financial support system of heating oil consumers with low incomes and the limited coverage of the demand consumers have all turned them to alternative ways of heating and narrowed the final oil demand heating.
- The dropping sales of heating oil have resulted in a significant loss of tax revenue and deviations from budget targets.
- The unintended consequences of the measure associated with environmental pollution in urban areas, due to the extensive use of firewood for heating homes, which is a negative external effect (externality) that are highly likely to result in significant additional costs to the health system. It is also associated with increasing "energy" poverty and deteriorating living conditions, as considerable number of the citizens were not able to secure the minimum required level of heating their homes.
- Considering the aforementioned developments the respective measure of tax equalization should be reviewed and improved.

Overall, the study of measuring and analysing the reasons responsible for the high rate of shadow / black economy in the energy sector in Greece and the proposed policies in order to minimise this high rate are the main goals of the research agenda of this working paper. The respective analysis will allow us to conduct conclusions regarding economic, political, legal and social aspects, which will be also the bases for the creation of proposals regarding the resolution of problems caused by shadow economy. Greece is facing high government debt; as long as Greece is able to fight corruption, bureaucracy, tax and social security evasion, and can recognise the high rate of informal work, thus the target will be the possibility of controlling the phenomenon, containing the rate of shadow economy (which is considered to be between 28% and 35% of Greek GDP according to Schneider: 2013).

## RESEARCH METHODOLOGY

The method of empirical research is the use a questionnaire survey on a random sample / structured interviews of market participants in the energy trading sector with the aim of achieving nationwide coverage. The questionnaire survey is an integral part of the overall investigation of Professor Aristides Bitzenis "The Shadow economy (informal sector) in Greece: Size, Causes and Consequences", in the context of Thales Research Project. Regression econometric analysis will be further utilized to enhance the results of the questionnaire research.

Emphasis is given to the qualitative analysis of questionnaire results which it aspires to reveal the opinions of households, enterprises and institutional entities and public services. It does not aim to the precise percentage regarding the measurement of Greek shadow economy but aims to the qualitative analysis and the comprehension of the problem so that we can reach essential and thorough proposals to the government in order to minimise the problem.

The whole process of collection of questionnaires in the Project Thales, including the current research proposal, is innovating, based on new technologies (using laptops, the internet, mobile internet, mobiles, SMS, real time distribution of the results, local collection of the answered questionnaires). Moreover, the use of questionnaires with bullet points is a pioneering method for the Greek standards. This kind of questionnaires make the research extensive since they are read though a professional scanner special for quick reading and accurate analysis of the results.

It should be noted that the fieldwork has secured funding through the above mentioned research Project. The funding is necessary in order to carry out all the necessary preparatory work for the interview, reproduction and completion of the questionnaire from the final sample. The configuration of the questionnaire finding suitable questions, the processing of the questionnaire and the respective analysis in the case of Greek energy sector is part of the whole project.

## EXPECTED CONTRIBUTION OF THE PROPOSED RESEARCH

The successful implementation of the specific action of energy, is aligned with the context and aims of Thales Research Project, as aforementioned, and is expected to assist (1) the local and the national GDP growth (2) the confrontation of the problem of high deficits of Greece, (3) the decrease of social contributions avoidance and tax evasion, (4) the reduction of corruption, (5) the reduction of bureaucracy, (6) the increase of national income but also (7) the improvement of the enterprising environment (energy business environment), (8) the improvement of reliability of the statistical information in Greece, (9) the social conscience, (10) the confidence in the state, (11) better finances of state, (12) sectors such as income, employment, and consumption will be increased, (13) the

productive base of economy will be extended, and (14) in the medium- or long-term many positively side effects will appear.

The innovativeness and the originality of the proposed research area and the wider Project is associated with the fact that has never before in Greece been performed a similar research, and also the fact that this study is situated at the peak of the current public and academic debate.

Until now, the estimated size of shadow economy in Greece results only through indirect approaches, methods that are easily applicable but include a great possibility of fault in the accurate measurement of the shadow economy, and are also unable to determine the factors that cause people to shift toward shadow economy. These indirect approaches to measure shadow economy are the widespread calculations of black economy that are based on secondary macroeconomic data. The research methodology and the Project by considering the weaknesses of a direct approach of measuring the Greek shadow economy (there is a cost in resources and time of managing a large number questionnaires), however, aspire to be the first that will calculate the shadow economy in Greece by using and analysing primary data.

Finally, the subject of the current research is closely correlated to the Trans-European Energy Networks (TENs) and European strategies for Gas and Power trading, and engages a sector with prominent prospects, of which the profound importance is expected to shape both the short and medium-term geo-economics of Greece, Cyprus, and other Eastern Mediterranean countries, as well as determining their growth profiles and models in the forthcoming decades.

## **PRELIMINARY RESULTS FROM THE QUESTIONNAIRE SURVEY PERFORMED IN OIL TRADING COMPANIES**

The preliminary results are based on the questionnaire survey and structured interviews of market participants performed in oil trading companies located in Northern Greece region. The main areas of questions addressed to the participants involved the following aspects: a. Level of compliance of oil companies with Greek tax laws; b. Level of competence of tax officials; c. Enforcement procedures and penalties; d. Corruption and tax administration; e. Tax evasion and black economy (informal sector). Particular questions were primarily of qualitative nature and involved the following:

- (1) What is your view of the fiscal policies affecting oil trade companies in Greece?
- (2) What challenges does oil trade sector faces in Greece?
- (3) What is responsible for leakages in tax revenue in Greece?
- (4) How can tax leakages be stemmed?
- (5) What is your view about the black economy in Greece?
- (6) What can be done to reduce the level of the black economy in Greece?

- (7) What is your view of tax non-compliance by oil trade companies in Greece?
- (8) How can the regulators work together to improve tax administration in your sector of activity in Greece?
- (9) Which tax model do you deem appropriate for oil trade activities in Greece?
- (10) Do the different tax regimes give scope to reduce tax?
- (11) What is your view on allowing the different tax regimes to remain or be consolidated?

According to the feedback received by market participants, it has been achieved in recent years a restriction of fraud and fuel smuggling as a result of *tighter legislation and better system controls*. The measure of equalizing of Special Consumption Tax (SCT, or ΕΦΚ) in heating and traffic oil and to limit smuggling will lead many stations out of the market; at the same time, many private consumers in Northern Greece are turning to cover their demand in neighbouring countries (e.g. Bulgaria) due to significantly lower taxes and the final price of fuels. The intensification of competition may also lead the industry in further contracting profit margins and higher concentration.

The market will continue to have characteristics of *oligopolistic structure* with dominance of the refining companies and their subsidiaries in the fuels' marketing industry. However, the rationalization of the market due to the reduction in the number of oil stations is also expected to contribute to more effective auditing and controls and further restriction of illegal activities. Further, despite the fact that the number of trading companies is large a form of collusion at local level (e.g. remote areas, islands) remains very likely.

The measure, however, to *increase the Special Consumption Tax in heating oil* (by 440%) had a drastic effect on sales of heating oil, by increasing sharply the prices, and has turned consumers to alternative heating modes with significant environmental impacts (negative externalities) and narrowed the final demand for heating oil (from 55-60% to almost 20% of total oil consumption) and tax revenues. At the same, this measure has contracted significantly the number of oil stations, as a result of the decreased profit margins from the reduced sales of heating oil, and is expected to further intensify the oligopolistic structure of the market (further to the departure of the two multinational players Shell and BP who decided to exit from the Greek market).

Further, the contracted profit margins at the levels of 2-7 euro cents per litter, does not facilitate the *funding of new investments in gas facilities and infrastructures*.

The recent introduction of an *input-output system* is a positive development, despite the problems and inefficiencies resulting from the lack of scaling (deduction) in real time at 15° C of the sold volume fuel by pumps (i.e. during hot weather conditions the quantity of oil in terms of weight that is pumped/transferred to the consumers is much less in comparison to normal conditions of 15° C, as the pumps operate in terms of volume, which increases significantly during hot periods). Connecting

electronically the reservoir to the pump station provides at any time the data on the quantity of liquid fuel (gasoline, diesel) that entered or sold with significant precision. In combination with the use of *cash registers* is expected to contribute significantly to the reduction of smuggling and adulteration of fuel. To be mentioned, that the negotiated Troika package passed by the Greek Parliament, includes explicit provisions for the implementation of this system also by the two refineries (ELPE and Motor-oil). At the same time, the introduction of the input-output system has created protests from smaller and remote oil stations, as its installation cost (approx. EUR 15.000) burdens un-proportionally their operations, thus requesting financial support from the Government for its application.

Smuggling in *shipping oil* sector remains important. Tax-exempted allocation of shipping fuels is required by the provisions of Articles 15 and 23 of Law 2127/93 and Law 603/77. The supply of passenger and cargo ships is carried out by tank cars or “slepia”, transporting untaxed fuel (transit). The surveillance mechanism of this activity on the part of state authorities remains inadequate and important measures remain to be undertaken in this direction.

The market participants referred finally to the inefficiencies resulting from the fact that tax clearance for fuels take place only in the Customs offices in Aspropyrgos, Korinth and Thessaloniki, and the specifics of the Greek geography due to the large number of islands, which further increases the final fuels cost due to the high transportation costs, which over exceed the benefits from the lower VAT regime which is applicable.

## CONCLUSIONS

In Greece, many are those who argue that tax revenues of hundreds millions of euro a year are lost by the Greek government from illegal activity such as in fuel trading, arguing that tax evasion and fraud affect both public revenues and healthy companies. Experts say that specifically fraud, piracy, incomplete deliveries to consumers, lack of transparency, the limited fraud inspections, delays in sentencing, fictitious exports, the lack of controls for maintaining buffer stocks substantially all arise from the lack of proper control mechanisms set by public authorities. Further, it is noted that the existing institutional framework is inadequate to eliminate the barriers in competition and healthy functioning of the market and achieve consumer protection.

Overall, the study of measuring and analysing the reasons responsible for the high rate of shadow / black economy in the energy sector in Greece and the proposed policies in order to minimise this high rate are the main goal of the research agenda of this working paper. The preliminary results presented are based on the questionnaire survey and structured interviews of market participants performed in oil trading companies located in Northern Greece region.

According to first evidence from the interviews performed, significant progress has been achieved in recent years in the restriction of fraud and fuel smuggling as a result of tighter legislation and improved system controls and measures. However, smuggling in shipping oil sector remains an important issue that should be further researched and effective measures needs to be established by the tax authorities. This area also consists the aim of further future work of this paper.

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## THE CHARACTERISTICS OF THE MENTALITY LEADING TO A LONG-TERM SUCCESS IN AN EVER-CHANGING WORLD

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### ABSTRACT

People from previous generations did not grow up in a world where transformation was common so for them the norm of life and business was stability. But the times have changed. The globalization, the technology and the increasing volume of information, are creating a social and economic environment, which is characterized by a rapid and continuous changing, sometimes even hazardous. In such a world where no one is immune to these forces, people and companies have two options: to constantly improve themselves or to die, to be a master of the change or a victim of it.

The current article tries to answer to a vital question: „What can it be done in a changing world, for people and companies to achieve a long-term success?“ „Which is the essential factor that makes the difference between those who have long-term success and those who can not handle the change?“

An examination of the evidence provided by the stories of those who are a master of changing and those who are a victim of it, reveals that the main difference between these two categories is not the potential, is not the hard working culture but it consists in the mentality. The quality of our thinking gives the level of our life quality. The more we are willing to change quickly inside, the faster we will change on outside.

**Keywords:** *quality mentality, changing world, long-term success*

### INTRODUCTION

At least in Romanian society until 1989, people knew that if someone learn a trade or graduate a school and if they had found a job, they would have likely retired from that place. After the Revolution, the situation has changed dramatically and many have not been able to adapt to the new conditions. Unfortunately, too often, people and organizations do not see the need for change. They do not correctly identify what to do, and too many people think and act as James Allen declared in "As a Man Thinketh": „Men are anxious to improve their circumstances, but are unwilling to improve themselves, they therefore remain bound" (Allen 1902). They remain blocked to the level of trying to managing change and do not pass beyond to leading change. The Romanian society in particular and



the whole world in general, has faced in the last years more big changes than ever before, which lead in every area of activity to more competition than ever but also to more opportunities than ever before and the trend is the acceleration of these factors. If this is the case, the only rational solution is to learn more about what creates successful change and to pass that knowledge on to increasingly larger groups of people (Kotter, 2012).

From the beginning it must be clear that the methods used in successful transformations are all based on one fundamental insight: that major change will not happen easily (Kotter, 2012) because people and companies are more likely to defend the status quo than to fight for what they must become in order to have long-term success. But only those who are willing to change the way of thinking and making things have more chances for long term success. It seems that fundamental difference between these two categories is not the potential, is not the hard working culture (in that case the developing countries should be on top of the world economy) but it consists in the mentality. The quality of our thinking gives the level of our life quality. The more we are willing to change quickly inside, the faster we will change on outside because the changing of the mentality leads to the changing of the attitude who leads to the changing of life. Handling the challenge of change well, the people and organization can prosper greatly. Handling it poorly, they put themselves and other at risk. In the case of the company, Vasile Lutai, Managing Partner Quest Advisors explain that "The role of innovation in the development of an organization begins where it ends the role of expertise, after the foundation of the organization and dedication were put and now moves on identifying a factor shootout." (Csatlos P. 2014)

## **SO, WHICH ARE THE BASIC CHARACTERISTICS OF A WINNING MENTALITY?**

### **Focus on the Future**

How can we focus on the future?

The first step is preparation for it. You always must be ready. When the opportunity comes it is too late to prepare. Everyday you prepare or repair. The first step in being prepared for the future, is to create a vision of the future. Without the vision the people perish. Creating the vision of the future means a proactive attitude that is willing to make some changes on the road but always keep the direction. The clarity is one of the most important factors in achieving the long-time success, a real hidden driver of the excellence. (Goleman, 2013) When there is a clear vision of the future is easier to make decisions in the present because the vision clarifies the general direction for change, motivates people to take action in the right direction and helps coordinate the actions of different people. This is an important aspect because in the most cases it is necessary to build a guiding coalition to have the

capacity to make needed change happen because too often the forces of inertia are too strong. The life of a person and the activity of a company must be goal-oriented knowing the fact that not every activity it is a realization. The personal life and the company leadership must establish goals and always focus on the best way to use time. In this case the discipline to implement them is very important. Developing a vision and a strategy has to do with planning ahead, doing what is good and what is needed today for reaching the good destination tomorrow. If someone does not properly care about today and does not manage the daily details of life, he will not have long-term success.

According to Kotter, a good and effective vision is imaginable (conveys a picture of what the future look like), desirable (appeals to the long-term interests of people), feasible (comprises realistic, attainable goals), focused (is clear enough to provide guidance in decision making), flexible (is general enough to allow individual initiative and alternative responses in light of changing conditions) and communicable (is easy to communicate; can be successfully explained within five minutes).

Another ingredient of the focus on future is the reflection of the past. You cannot be efficient as a person or as a leader of a company if you do not take time for reflection. At this point I think that it is useful to imagine our life in three concentric circles. The inner circle represents all we can control in life, the middle circle is what we can influence in life and the outer circle represents what we cannot control or influence. Our personal past or the history of the company cannot be controlled or influenced. The past it is just something that it can be learned. Instead, the future can and must be modeled and the only way to predict the future is to create it.

### **A Continual Investment in Personal Growing**

In this life we are the limiting thresholds of all we do so if we want a better business, organization, even a better family, the first investment must be in ourselves. The success in life begins with the area of personal leadership. The success will not be beyond our level of development.

How can we invest in us?

Value the experience through reflection. The experience is just what we live every day so it cannot be the best teacher. But the experience accompanied by reflection it is. To have a beginner's mindset is not about age but a matter of attitude. A beginner's mindset is not preset rules of commonly accepted behavior or thinking. Learn something new everyday.

Find mentors and coaches from whom to ask advice. If you want to think more deeply, do it with more deeply thinkers than you.

Do something beyond your level. Get out from your comfort zone but stay in the area of your skills. Think outside the box.

### **The Failure is a Friend not an Enemy**

Many times for ordinary people the biggest barrier in the success achievement is not the fact that they do not have any dreams and goals but it is the fear of failure that's why they lower their life at a "decent" level. But, a decent level of life is far from a full capitalization of their full potential. Maybe the lower standards allow you to avoid the failure but it doesn't help you to lead an adaptive change because this kind of change requires an attitude of an experimenter that implies risks. On the other hand, examining the personal history of important people or the history of big companies we will be struck by how often they made some of their best moves not by detailed strategic planning, but rather by experimentation, trial and error, opportunism and – quite literally – accident. (Collins, 2005). R. W. Johnson Jr., Former CEO at Johnson & Johnson in 1954 used to say "Failure is our most important product" said (Collins, 2005). Vaslie Lutai, Managing Partner Quest Advisors makes a step forward and recommends "Reward people who make mistakes and learn from it." (Csatlos, 2014). We are humans so the big question for us is not if we will fail, but what we can do with the fails. If we learn to correctly manage the bad experiences, they can lead to a big development. We must learn to make from the bad experiences the engine of our growth. It is very important not to don't fail, because no matter how high are our standards, how well prepared we can be, will be a time when we will fail. The important thing is to fail forward and to turn our mistakes into stepping-stones for success. (Maxwell, 2000). A long-term success person or company has learned that in life sometimes you win, sometimes you learn and winning isn't everything, but learning is. (Maxwell, 2013).

Here are some suggestions that can help us to manage better the failure:

Give a broader definition to the success of the process through you try to make adaptive changes. Don't judge you just according to the criterion „it worked/it doesn't work“. Learn the lessons of your efforts even if not all are successful.

Prepare the group to which you take responsibility. Manage their expectations and prepare them for a possible failure that could result from your efforts.

Make small experiments. The small failures are easier to manage than the bigger and expensive ones.

### **Perseverance**

There are too many who overstate the importance of the event in the achieving of the success and understates the power of the process. The event encourages the decisions but the process encourages the development. The event motivates people, but the process matures the people. The event it is related by a date in the agenda, the process it is an aspect of the culture. The event is very pleasant, but the process is difficult. The key to success in life is the perseverance because the information itself doesn't change anyone and the change doesn't appear when someone read a book or talk about it. You must apply on the daily bases the information; you should take time to absorb, to learn who you are ,

what is your potential. The shortcuts don't bring long-term rewards, but the perseverance is not simply at all. The effort of change and adaptive work represent a complex journey, it may be accompanied by a lot of digressions, detours, frictions and trinkets. This process means to learn, to grow, to apply, to adjust, and to readjust. There will be a lot of moments when you can ask yourself if it is worth all the effort but keep in mind that long-term success is never made is never created in the microwave.

How can we stay focused and persevere? Here are some tips.

In difficult times, it is very important to keep in mind why you are on that particular road of your life or company life. The answer to why question it is the power that helps you to continue during the difficult times. In order to be able to give maximum efficiency, you must become your own coach. You must develop the habit to prepare and encourage yourself in order to make the best game possible all the time. The power of "why" is more important than the power of will. The power of will helps you to do what is necessary even if you don't like it, but the „why“ makes you happy.

Another important decision related to perseverance, is to be willing to pay the price for success. Be aware that as your dreams are higher, the price for their achievement is bigger. People start to die when they stop to pay the price for their growing because there isn't success without sacrifice that's why so many people just dream in their life – dreams are free, the journey isn't.

Be focused not in the goals but on the continual development. If you are focused on the goals, the destination became very important, it motivates you for a limited period but when you achieve the goal, the motivation stops. When you are focused on the development, the journey became important, and this journey makes you grow up for all your life, because the journey itself is as long as life. You will grow up until and after the achieving of your goal.

## CONCLUSION

The future is hard to predict, but it seems that in the next few decades the speed of change will increase and its environmental volatility continues to increase, the standard social order and the standard organization of the twentieth century will disappear.

So how will the successful people and the winning enterprise of the future look like? Honestly, I think that we do not know, but considering the implication of those mentioned in this article, I think that if we want to be a master of change and not a victim of it, we need to get rid of the feeling of complacency and develop a high sense of urgency that thus not mean panic, anxiety or fear, in our every day life. It means a state in which complacency is virtually absent, in which people are always looking for both problems and opportunities, and in which the norm is „do it now“. (Kotter, 2012).

Organizational culture of the company should be one that encourages innovation. People should be taught to feel free to express their ideas, to ask questions, to learn from failure and mistakes.

It doesn't matter where you came from; it matters where you are going.

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## **MANAGEMENT CONTROL SYSTEMS AND SUCCESSION IN FAMILY FIRMS: AN ITALIAN CASE STUDY**

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### **ABSTRACT**

One of the dominant research topics in family business phenomenon are the management succession and the professionalization.

Our main aim is to underline the importance of Management Control Systems (MCSs) implementation and evolution, in conjunction with professionalization, in supporting a succession process in family businesses, especially if small and medium-sized ones, in order to achieve a long-run value creation and to guarantee the survival of the firm. In particular, we tried to understand how formal systems - specifically Diagnostic Control Systems (DCSs) and Interactive Control Systems (ICSs) which represent Performance Measurement Systems (PMSs) - together with a professionalization phenomenon can affect family businesses strategy implementation and indirectly performances, especially during a generational handover process.

Among qualitative approach, we made an explanatory case study, opting for a single case study, i.e. Vega Tools International, which is quite representative for this research topic.

We can affirm that during the process of succession, especially if characterised by a strong crisis that makes urgent a change in the business strategy, the professionalization phenomenon together with the introduction of formal MCSs are relevant organizational changes to improve strategy formulation, implementation and control. In addition, the interplay and the tension between formal DCSs and ICSs are very useful in a family business, in order to support the succession, in conjunction with the professionalization phenomenon, as they permit to couple the family business culture together with the formal competences of managers.

The implications are several. Formal PMSs can be sustained with positive effects on succession and strategy implementation. Indeed, DCSs and ICSs and their dynamic tension represent a positive solution to maintain competitiveness above all when the founder of the firm is preparing his succession. In addition, ICS contributes to the emersion of new opportunities and creativeness within the business and makes possible the top manager, usually a member of the family as in our case study, to capture emergent strategic initiatives that arise from the bottom of the structure, usually represented by non-family members.

One limitation of the paper is represented by a single case study method, which makes difficult to generalize uncritically our conclusions. Furthermore, in addition to the interview technique we could also adopt additional data collection methodologies, based for example on questionnaires sent to representative employees in a sample of family businesses.

**Keywords:** family businesses; management succession; professionalization; Management Control Systems (MCSs); Diagnostic Control Systems (DCSs); Interactive Control Systems (ICSs); Performance Measurement Systems (PMSs).

## INTRODUCTION

The family firms (FFs) phenomenon is widespread around the world and for this reason the literature has given high consideration to this topic (Astrachan and Shanker, 2003; Claessens *et al.*, 2000; Faccio and Lang, 2002; La Porta *et al.*, 1999; Morck and Yeung, 2004). The vast majority of publicly traded businesses in Europe, Asia, Africa and Latin America are family controlled (Acquaah, 2013; García-Ramos, García-Olalla, 2011). In Italy, as well as in Europe, the economic environment is characterized by the presence of numerous small and medium-sized companies, often family-controlled (Mediobanca, 2013). Both in advanced and developing economies, FFs manage most of the economic activity and are increasingly considered by both public opinion and policy-makers as a driving force (Colli, 2013).

One of the dominant research topics in family business phenomenon is the management succession and, in particular, the generational handover, which represents the most relevant concern of family business leaders (Chua *et al.*, 2003). Another important issue debated in literature is the professionalization in FFs, which is generally defined as the phenomenon during which professional managers become part of the management or of the ownership in a family business (Giovannoni *et al.*, 2011). Despite the fact that succession and professionalization are critical issues for the literature about family business, the topic concerning how Management Control Systems (MCSs) could change and evolve in order to support the generational handover and how its implementation is affected by or affects professionalization have been largely overlooked by researchers, with few exceptions (Amat *et al.*, 1994; Giovannoni *et al.*, 2011).

For this reason, as suggested by Salvato and Moores (2010), our main aim is to underline the importance of MCSs implementation and evolution, in conjunction with professionalization, in supporting a succession process in FFs, especially if small and medium-sized ones, in order to achieve a long-run value creation and to guarantee the survival of the firm. In particular, relying on Simons' (1995, 2000) levers of control framework and on Acquaah's (2013) work, we tried to understand how

formal systems - specifically Diagnostic Control Systems (DCSs) and Interactive Control Systems (ICSs) which represent Performance Measurement Systems (PMSs) - together with a professionalization phenomenon can affect FFs strategy implementation and indirectly performances, especially during a generational handover process.

In the context of a qualitative approach, we combined the insights of the literature on management accounting in FFs with the findings observed in an explanatory case study. Our research case study is represented by an Italian small-sized FF, Vega Tools International, which purchases and sells technical components and services for the machine tools sector. In this firm a generational handover happen some years ago and in the meanwhile the economic crisis caused a turnaround process, which required an organisational transition (professional managers, such as the CFO) and the implementation of modern management control systems.

We consider this issue relevant both for the practitioners and for the literature, especially in a context characterised by economic crisis, as it indicates an important perspective of managerial innovation in FFs to achieve competitiveness, and, above all, as we have observed a gap in current frameworks concerning the role of managerial mechanisms, especially according to family business succession (Songini *et al.*, 2013).

In this article, we first outlined our research method. Then we looked at the analysis of the theoretical background of the FFs, drawing particular attention to the main issues of our paper (the succession, the professionalization and the role of MCSs). In the fourth section, the discussion of the results is presented together with the conclusion. Finally, implications of the study are given, along with the limitations of the research.

## METHODOLOGY

The aim of our work was to understand how MCSs support strategy formulation and implementation, especially during a process of succession, in conjunction with a phenomenon of professionalization.

On the basis of the research objectives, the following hypotheses have been developed.

*HP1: during a process of succession, especially if characterised by a strong crisis that makes urgent a change in the business strategy, the professionalization phenomenon together with the introduction of formal MCSs are relevant organizational changes to improve strategy formulation, implementation and control.*

*HP2: the interplay and the tension between formal DCSs and ICSs are very useful in a FF, in order to support the succession, in conjunction with the professionalization phenomenon, as they permit to couple the family business culture together with the formal competences of managers.*

The research methodology was structured around the following phases:



a) in the first phase, we made a literature review on the succession and professionalization phenomena in FFs and on the role of MCSs during these processes. This literature review brought to light a lack on the role of MCSs to facilitate generational handover in FFs; indeed, current studies didn't focus on the recourse of strategic planning, management control and professional managers, such as the CFO (Songini *et al.*, 2013). On the contrary, researchers focused on the use of financial accounting tools in combination with other typical problems during planning and handling succession, such as governance, finance, law and tax planning;

b) in the second phase, we used a qualitative approach. Aware of its criticism in terms of trustworthiness (Atkinson and Shaffir, 1998; Guba and Lincoln, 1998), we chosen the qualitative method (Bonoma, 1985; Creswell, 1994; Eisenhardt, 1989; Glaser and Strauss, 1967; Van Maanen, 1982; Yin, 1984) due to its accuracy both in understanding the dynamics of the observed phenomenon (without making a lacking description of the phenomenon itself) and in applying the theories to the analysed context (George and Bennett, 2005; McKeown, 2004).

Among qualitative approach, we used the case study method. Case study method is the most suitable means to fulfil the research objectives (Gillham, 2001; Gummesson, 2000; George, 1979; George and McKeown, 1985; Merriam, 1988; Miles and Huberman 1994; Stake, 1995), emphasising words rather than figures about specific situations and involved people (Maxwell, 2012; Thiengnoi and Afzal, 2009). Case study method is frequently used in family businesses researches (De Massis *et al.*, 2012), both to understand the family decision process (Chrisman *et al.*, 2012) and to make a comparison between FFs and non-family firms (De Massis *et al.*, 2014). This method is particularly useful in family businesses context: indeed, its heterogeneity, due to an intersection of family and business (Tagiuri and Davis, 1992; Chua *et al.*, 2012), requires a multiple theoretical perspective and levels of analysis. For this reason, also case studies have to reflect this heterogeneity (De Massis and Kotlar, 2014), observing the multiple facets of the observed phenomenon.

We made an explanatory case study (Johansson, 2002; Kotlar and De Massis, 2013; Rolf, 2003; Scapens, 1990) that allowed understanding how the investigated phenomenon takes place. "Opening up the black box" (De Massis *et al.*, 2013) on the role of MCSs and professionalization in succession of family businesses, this case study permits to identify how Vega's business model can be effective and efficient.

We decided to observe a single case study, i.e. Vega Tools International, for several reasons. Although several limitations of a single case study method (De Massis and Kotlar, 2014), our single case study is significant because it meets a series of conditions:

- the case study is firstly a typical small-sized FF which composes the Italian economic context. Succession and professionalization topic in Italian FFs are particularly interesting for researchers

(Prencipe *et al.*, 2008). MCSs were not so widespread in Vega Tools International, even if over the last five years the company has undergone a significant change in management roles, routines and systems. Lastly, it is involved both in a professionalization process, which permits the entrance and training of non-family members managers, and in a succession process;

- our choice was influenced by the offered opportunities for unusual research access (De Massis and Kotlar, 2014) for an extended period of time: indeed, the management of Vega Tools International provided us an high degree of research access to the company, both with in-depth interviews and with the provisions of extensive information and data. Therefore, the case study presents a series of variables for observation, the analysis of which requires the use of a multitude of data, which are generally inter-connected (Yin, 2003a) and have to converge in a “triangulation fashion” (De Massis and Kotlar, 2014);

- our case study is characterized by several variables and actors over the different life cycles of the company, which permits us to investigate all the multifaceted processes concerning the business activity (Cooper and Morgan, 2008; Ditillo, 2004; Moores and Yuen, 2001);

- in conclusion, this case study was extreme, representative and leading case (Patton, 1990; Stake, 1995; Yin, 2003a and 2003b). It is extreme, because MCSs were not so widespread in the past and the company is now involved in a generational handover; it is representative, inasmuch as the company is a typical small-sized FF, which composes the Italian economic context; and, lastly, it is a leading case, because it combines tradition and innovation values in its management, both on the part of family members and of the staff operating in companies and at various hierarchical levels. Therefore, we considered our case study particularly suitable for revealing a phenomenon and for identifying relationship and logic among variables (Eisenhardt, 1989; Graebner and Eisenhardt, 2004).

Our research lasted three years (from 2011 to 2013): this period is sufficiently representative for us to observe case study development, growing and changing of knowledge, skills, attitudes, perceptions and behaviours in essential ways over a period of time. In addition, despite professionalization and succession processes could be considered as an on-going process that needs to be studied over time (Giovannoni *et al.*, 2011), these processes accelerated in 2011 to permit the retirement of the founder and the consequent professionalization and generational handover.

Data collection first started in the beginning of the research and then repeatedly continued for the duration of the research itself. Due to an enormous amounts of time required for an in-depth exploration and analysis of the phenomenon, we decided to make a panel study, observing a small group of subjects (the founder, the CEO, the CFO, the Sales Manager, three Product Managers, two Sales Agents, six employees and four warehousemen) and making a sampling of a cross-section of individuals.

We conducted the case study by using multiple information sources (Eisenhardt, 1989), as both qualitative and quantitative ones should improve findings credibility (Patton, 1990). Interview was the primary data source, due to its attitude to observe a phenomenon at various levels (Alvesson, 2003; Eisenhardt and Graebner, 2007; Potter and Wetherell, 1987). The interviews were semi-structured one-to-one (Alvesson and Deetz, 2000; Corbetta, 2003), and they were targeted and characterized by a rich articulated scheme.

These interviews were prepared simultaneously by three authors and were structured to cover the following topics: a first topic was of an introductory nature, with the purpose of describing the sector in which the company operates, the history of the company and the family, and the role played by individual family members in running the business (this interview was conducted with the founder and the CEO, son of the founder); the second topic focused on the recognized improvement areas, such as strategy (value and mission of the whole company, especially compared to the interviewee's ones), organization (organizational structure of the company, a description of each work process, the role of team work, the improvement of the work process, MCSs and professionalization) and governance (leadership pattern of the company and decision-making process). The interviews were conducted over a period of 3 years (2011-2013) at the firm's headquarters and the informants have been the following: the founder, the CEO, the CFO, the Sales Manager, three Product Manager, two Sales Agents, six employees and four warehousemen. The interviews were carried out by two of the authors of the research and lasted approximately two hours, during which the pre-prepared structure was followed. Some informants were interviewed more than once, with the purpose to clarify some important topics during the analysis of information. We made in total twenty-nine interviews with nineteen different individuals. The last series of interviews was conducted in winter of 2013. The interviews' findings were then autonomously analysed by the three authors to avoid influences by each other's interpretations (Atkinson and Shaffir, 1998; Jönsson and Lukka, 2005). A comparison between authors' interpretations was made. All the interviews were transcribed in an electronic manner, in addition to trustworthiness verification from the informants on collected data.

In addition, other secondary sources were used. Among them, we made: direct observations in Vega Tools International offices, during which we observed organisational life in the company and obtained rich information about several aspects of the business activities (Myers, 2013); non-participant observations in which informants were followed during casual meeting in Vega Tools International, such as coffee breaks and family dinner; documentary material, including internal reports, documentation taken from websites and other published material. A combination of interviews and secondary information sources findings was made in a sort of "triangulation process" (Denzin and Lincoln, 1994; Jick, 1979; Pettigrew, 1973; Stake, 2013; Yin, 1984) by observing the phenomenon in

different angles, increasing findings validity and avoiding post hoc rationalization (De Massis and Kotlar, 2014).

Data analysis began with a preliminary understanding of the really use of MCSs by the company and then on the professionalization and succession process. Information were prepared before being analysed using some techniques, such as data reduction, data categorisation into different topics (such as MCSs, professionalization, generational handover) and data contextualisation (De Massis and Kotlar, 2014). Subsequently, we also identified relationships between different data categories. Qualitative data were then systematically analysed, even if data collection and analysis happened simultaneously (Kotlar and De Massis, 2013), sometimes requiring an on-going change in our research design and identifying some new features to observe. We converged data to understand the case study in its complexity, avoiding separate considerations on separate parts of the case study. Internal validity of our research (Yin, 2003b) was improved by identifying some plausible logical causal relationships between variables and findings; external validity required an analytical generalisation of the phenomenon (Yin, 1984 and 2003b), rather than a statistical generalisation of the results. We tried to avoid subjective judgments, preferring a well-considered set of measures; in addition, other scholars were involved in the data analysis process with the purpose to improve the rigour and trustworthiness of our case study research (Campbell, 1975; Gibbert *et al.*, 2008; Gibbert and Ruigrok, 2010; Yin, 1981). We then sent the draft paper to the various informants, with the purpose to verify our interpretation. The research was concluded outlining a model for applying MCSs and professionalization to succession.

## THEORETICAL BACKGROUND

### *Family business succession and professionalization*

The FF survival is influenced by relations between the family and the firm: indeed, the family is involved in the maintenance and support of its members, investing its own resources in the business activities based on entrepreneurial values, also inspired by tradition, unity and affection (Salvato, 2002; Ward, 1997). Some shared values motivate both the family and the company, such as the continuity of the economic activity (Coda, 1988; Giannessi, 1960; Onida, 1954; Zappa, 1957) and the value creation (Catuogno, 2006; Cuccurullo, 2006; Tiscini, 2006).

Management succession in FFs is the transfer process of firm leadership or the passing of the leadership baton from a managing or incumbent owner to a successor, who could be either a family or a non-family member (Beckhard and Dyer, 1983). Due to the transfer of management is a long way beginning in childhood (Longenecker and Schoen, 1978), management succession is a multiple-stage process (Handler, 1990). Miller *et al.* (2003) assumed that management succession transfers firm

leadership from one family member to another or, in the absence of a competent family contender in the short-term, to a bridge manager between family tenures. When the management succession happens between members of the same family it is defined generational handover. Scholars stated that responsibilities and experiences inside the family business enable the successor to understand the culture of the firm and to develop relationships within the company (Tirdasari and Dhewanto, 2012).

Scholars refer to management succession in several topics, such as:

1) *defining a family business*: some scholars affirmed that in a FF there must be at least two family's generations involved in its management (Ward, 1988), conveying managerial skills to the next generation (Churchill and Hatten, 1987). In addition, it emerged that a family business can be composed of a single family in the case of the generation establishing the business, which is headed by the founder assisted by the other members of his/her family; alternately, different families may be involved, in particular after a generational handover through which the company is in its second or third generation (Corbetta and Dematté, 1993);

2) *considering its impact on the performance and innovation*: a growing literature focused the impact of incoming family heirs and professional CEOs on company performance after management succession (Bennedsen *et al.*, 2007; Cucculelli and Micucci, 2008). We can group the various assertions in two categories:

a) the authors who asserted a negative effect of the management succession on the business performance and innovation;

b) the authors who describe which are the conditions in order to achieve a positive effect of the management succession on the business performance and innovation.

*Belong to the first group* some studies which considered the management succession a traumatic event, due to the typical overlap between executive and ownership positions in a family firm (Gomez-Mejia *et al.*, 2001), which negatively impacts on longer investment horizons, reputational concerns and agency conflicts between managers and owners (Amore *et al.*, 2011). A destruction of value may occur when the family business is managed by their second or third generation (Villalonga and Amit, 2006; Pérez-González, 2006; Smith and Amoako-Adu, 1999). Only a small part of family businesses survive the management succession to the second generation, observing the failure of many intergenerational transitions after taking of control by the second generation takes control (Davis and Harveston, 1998; Handler, 1990, 1992; Morris *et al.*, 1997; Sonnenfeld, 1988; Ward, 1997; De Massis *et al.*, 2008). In addition, when CEO succession occurs, it may aggravate capital structure decisions in FFs (Amore *et al.*, 2011).

*Belong to the second group* other studies that showed how the family's attitude (Birley, 1986) is a great condition to facilitate management succession. Personal relations among family members often

represent a dominant condition for a maximum profit in family firms (Davis, 1986). To reach positive impact on company performance, the successor must enjoy the confidence from the family (Goldberg and Woolridge, 1992; Horton, 1982). Commitment to business is a dominant condition to reach positive management succession, rather than gender and birth order of family members (Chrisman *et al.*, 1998). Nevertheless, the level of junior generation members' interest (Stavrou, 1999) in the business influences the succession results (Handler, 1989; Ward, 1987). Some studies focused on the best age the successor has to have. It emerged that the eldest member may not always be the best solution, as well as sons may not necessarily be better than daughters. Nevertheless, choosing a younger son or a daughter as successor may not necessarily be a better solution (Tirdasari and Dhewanto, 2012). Some authors have underlined how the successions outside the family are generally associated to an increase of the operating returns (Amore *et al.*, 2011).

Multi-generation family businesses also have a lower entrepreneurial drive than first-generation family firms (Westhead and Howorth, 2006), even in the innovative policy (Bresciani *et al.*, 2013). Innovation policy is favoured if the company develops across generations (Bresciani *et al.*, 2013); in other words, innovation is family-based if and only spontaneous interaction between family members across generations takes place and if the innovation investments are relevant to the process's outcome. Without both generations being involved, it is difficult for innovation in family business to take place. The secret of innovation in family business lies with the attitude of dynamically balancing power and trust, and control and freedom in the developmental process of a senior-junior relationship in the management succession (Litz and Kleysen, 2001). Especially larger and older family businesses are characterised by generational evolutionary stages (Lubatkin *et al.*, 2005), which impact on the long-term investment perspective and on the innovative strategies.

It is evident that the vast majority of studies have focused on the family level (Songini, *et al.*, 2013), while few researchers have underlined the importance of professionalization and MCSs in succession process, as tool with which implementing and controlling strategies and, indirectly, performances. The professionalization is generally defined as "the process through which professional managers become part of the family business at the management or ownership level. This process entails the adequate formal training and education of individuals (regarded as professional managers), but it may also result in an increasing adoption of formal mechanism and systems inside the family firm to support the business" (Giovannoni *et al.*, 2011). The main part of the literature considers the professionalization phenomenon in a FF as the entrance of an external subject, not belonging to the family, into the business, but it also happens that the same members or employees of the family become more "professional" through specific educational process (Dyer, 1989; Hall and Nordqvist, 2008).

Furthermore, the interplay between succession, professionalization and MCSs deserves an in-depth research, in order to understand how professionalization and MCSs can support a successful succession, especially considering the effects on business strategy implementation and, indirectly, on performances. For this reason a brief analysis on MCSs can support our study in underlying some key aspects on which focusing the attention.

#### *Management Control Systems*

MCSs are “the formal, information-based routines and procedures used by managers to maintain or alter patterns in organizational activities” (Simons, 2000). According to Chenhall (2003), the term MCSs is a broader concept that includes:

- Management Accounting (MA), that is usually referred to accounting tools, such as budgeting, cost accounting and financial reporting;
- Management Accounting Systems (MASs), the systems with which MA tools are used to achieve some goals in the firm;
- Organizational Controls (OCs), which are referred to the control of activities and processes, individuals or business culture, to achieve some goals.

The literature considers MCSs as indispensable to support both the implementation and the monitoring of the deliberated top-down strategies in a firm, and at the same time to shape the emergence of new and creative bottom-up strategies (Kaplan and Norton, 1992).

According to Simons’ performance measurement and control systems framework (1995, 2000), that informs our research, formal MCSs can be classified in four different groups – belief systems, boundary systems, DCSs and ICSs. In particular, DCSs and ICSs are the PMSs adopted by firms to implement and monitor the strategic intentions over time.

DCSs are usually used by managers to formally identify specific goals for the whole company and for each responsibility centre, considering both the current and the strategic period of time, with which making more rational and conscious decisions in order to correctly implement the deliberated strategy of the company. Companies consequently adopt feedback mechanism to inform managers with reports about the variations between original goals and achieved results, in order to make corrective actions. DCSs are usually used to motivate managers to achieve organisational goals in a conservatism framework, within the deliberated strategy of the company.

ICSs, instead, are formally systems adopted by top managers to encourage innovative and emergent bottom-up strategies in a company. The most important feature of ICSs is that the information that emerges through the interaction between top managers and managers at all levels of the organisation is an important source of competitive advantage and managers should use this information trough

face-to-face meetings with superiors, peers and subordinates, with the aim of continuously challenge and debate the deliberated strategy of a company, underlying new opportunities and new risks (Simons, 2000).

When DCSs and ICSs are jointed together in a firm, a Dynamic Tension is created that opposes innovation versus control and profitability versus growth, complementing the benefits of each of the control systems (Simons, 1995). The simultaneous use of DCSs and ICSs has a positive effect on the implementation of business strategy, both in terms of cost leadership strategy and in terms of differentiation strategy (Porter, 1980, 1985; Simons, 2000).

According to Acquaah framework (2013), DCSs have a greater effect on the implementation of business strategy for non-family businesses than for family businesses, especially considering a cost leadership strategy, while ICSs have a greater influence on the implementation of a differentiation business strategy for family businesses than non-family businesses. In any case, the dynamic tension created by a concurrent adoption of DCSs and ICSs has a greater influence on the implementation of business strategy (both the cost leadership and the differentiation strategy) for family businesses than non-family businesses. Through this consideration, Acquaah (2013) affirms that the indirect effects of DCSs on performance, mediated by business strategy, are greater for non-family businesses than family businesses, while the indirect effects of ICSs on performances are exactly the opposite, that is greater for family businesses than for non-family businesses. Furthermore, the indirect effects on performance of DCSs and ICSs combined together in a dynamic tension are higher in family businesses than in non-family businesses. The implications of Acquaah's work (2013) underline how formal MCSs are important in supporting strategic activities of FFs to create competitive advantage, especially when DCSs and ICSs are used simultaneously.

## CASE STUDY

### *The company*

Vega Tools International (Vega) is a company that imports and distributes products of some of the most famous international brands of machinery industry, exclusively on the Italian area. The company is based in Santena, a few kilometers from Turin, in the North-West of Italy, where an important manufacturing culture is embedded. A 1,000 square meters barn works as storage warehouse and, at the same time, it is used also as place for customer assistance and products repair.

Founded in 1973 in Turin by two entrepreneurs, Enrico Vergnano and Bartolomeo Gattini, Vega has 17 employees operating in the headquarters (in Santena, Turin) and various agents and associates partners working all over the Country. The company's sales volume decreased from an average of 12 millions Euros per year in the past to 8 millions in 2013.



Over the past forty years, Vega moved to a great growth stage, undergoing significant changes about governance, strategies, organizational structures and management systems. After the exit of one of the two founders of Vega in 2011, the Gattino's family decided to delegate the management of specific functions of the company to external managers, to enhance the level of professionalism in the business activities. The entrepreneur was not afraid to open the doors to the external world and at the same time he did not avoid the possibility to co-operate with some management consultants. Nevertheless, the guidelines for the governance of the company come from the Gattino's family, who leads the company with centralized power, even if assisted by top managers.

Giuseppe Gattino (founder's son) joined the firm in 2011 after an initial career as a journalist and started his training inside the company, to permit the retirement of the founder, who was till this moment the head of the firm, the unique center of decisional power in the company. The succession process has been experienced by the employees both as challenge as well as a chance for change and renewal. Giuseppe Gattino now is trying to bring young people in the company and establish a new model of governance primarily based on meritocracy.

Both the entrance of external members of the family as managers and the training of the son of the founder outside the firm can be considered as a typical professionalization phenomenon, involving a FF, with which the founder started to delegate decisions to the son and to the managers.

The company in 2013 was going through a difficult time due to the critical market conditions. To overcome the crisis situation, the company implemented a turnaround strategy, by a redefinition of the critical processes and an expansion of the target market. In addition, the family supported a substantial outlay to recapitalize the company. Moreover, an injection of liquidity made by the Gattino's family was made. At the same time, in 2013 some shareholders left the company and sold their shares to the Gattino's family.

At the moment, the Board of Directors consists of a President (Bartolomeo Gattino, the founder), a CEO (Giuseppe Gattino, Bartolomeo Gattino's son), two non-family members (Marco Sanpietro, CFO, and Massimo Maida, commercial director).

Today the company has regained stability and defined new guidelines for future development. In 2014, due to extraordinary actions to improve efficiency and thanks to recovered economic-financial balances, the company will be able to make investments for regaining the revenues lost over the past 5 years.

The machinery industry has always been an important point of reference for the manufacturing sector worldwide. The commercial distribution activity, which is Vega core business, is directly influenced by the primary market and replicates the cyclical trends. The economic crisis and competition from developing countries slammed this area, negatively impacting on the trend in revenues and profits.

Vega is still a big name in the machinery sector that means quality and reliability. The brand is certainly a valuable asset for the company even if not yet exploited through new media channels. The main product lines of Vega is represented by 5 representative brands and each of one is a business unit headed by a product manager, who has the task of developing specific business line growth.

The commercial structure is formed by the product managers and by many salesmen. The sales strategy consists in many on-site visits and tests to demonstrate the technical qualities of the product along with the ongoing support to the client at all stages of testing and setup. In spite of that, we found that even if the average customers are satisfied with the service provided, there is a declining level of loyalty, especially in the matter of urgent purchases and products with lower added value.

The company uses its own brand as the main marketing asset and participates in several trade fairs.

#### *The strategy and the strategic planning*

The processes of strategy formulation and strategic planning since 2013 have never been formalized in Vega. The CEO Giuseppe Gattino stated that *"the strategic planning was never a formalized process inside the company"* and the product manager Bruno Aragno, in charge of the cutting tools line, referred that *"a real corporate strategy never existed"*. The CFO Marco Sampietro referred that *"we always trusted the owner's vision making short-and medium-term predictions and observing the market just on the field. An explicit mission never existed and if we ask what is the company strategy the answer would be surviving"*. Being the strategic planning process an obscure subject inside the company, the employees have seen these procedures as useless or even counter-productive and, in other words, a loss of time.

With regard to the shared values, it emerged that the opinions of the managers were really different. They were above all elusive, but the reason could not be ascribed to a lack of interest. On the contrary, people proved to be curious about this subject. For example, the members of the sales team reported that *"it will be nice having a general guideline in order to organize the work in the long-term period"* and that *"unfortunately, the lack of shared values causes conflicts and misunderstandings"* and again *"we may need team building sessions in order to learn how to work together"*. The issue was that the interviewees never reasoned in terms of common values nor fully understood the meaning of the company's values. They never faced the problem to figure out if common values existed and if they were aligned with the individual ones. The values of the founder were implicitly transferred just trying to act as an example and to build trusted relationships in the long-term period. Among these values emerged from the employees opinion, we can find honesty, work dedication and loyalty. Almost all the interviewees stated that they believed in the owner's vision of the future even if they were not able to explain it, saying that *"Mr. Gattino knows what to do"* or *"I trust Mr. Gattino, I do not ask too many questions"*.

One of the issues that came out was the quality of the communication between the owner, the management and the rest of the structure. Nevertheless, there still were communicative obstructions

inside the company due to cultural reasons and traditions consolidated over the years. The company developed itself around the founder who never felt the need to communicate his purposes and his vision of the future. The respondents felt that, due to the fact the company reached considerable dimensions, the formalization of the vision became critically necessary and it should be communicated in order to inspire the employees.

The mission has never been declared and the tasks were mostly the result of the execution of guidelines coming from the founder. The mission was just settled in the mind of the owner-entrepreneur and has not been shared with all the employees yet. The fractioned nature of the activities prevailed and the impact of the single employee's performance was never clear. They never understood how these performances affected the ability of the business to achieve stated objectives. There was a lack of formal analytical instruments, which could have been useful in order to describe and summarize thoroughly and yet promptly the most critical performance issues. Mentioning Massimo Maida's words, sales manager, *"nowadays, it is necessary for the company to reinvent itself in order to compete in a very competitive market in which the competitors reduced medium prices. Being able to measure our results as fast as possible is part of this change"*.

In 2013 the management tried to formalize the strategic process, starting with the identifications of values, vision and mission. The managers, through inter-functional work groups and regular meetings, to which also the CEO Giuseppe Gattino participated, tried to reconstruct and formalize the implicit business strategy in six concrete steps. The starting point highlighted by the sales manager, the CEO and all the Vega's product managers was the following:

- Stronger penetration in the industrial segment: *"In order to increase the product margin and the customer loyalty rate, we have to be more present for the end users of our products"* (The President)
- International market extension: *"We identified some markets that might represent for us a great opportunity of commercial development"* (The CFO);
- Product line extension: *"the first goal is to increase the turnover in order to reach the break even point. The product line extension, inserting new products in our catalogues, is the first move in order to obtain the minimum turnover levels"* (The Sales Manager);
- Focus in the niche products: *"Even if we strongly want to expand our activity, we want to keep our position in the niche products distribution too. For this reason we will continue to focus on those areas in which the state-of-the-art technologies are required"* (The Sales Manager);
- Introduction of new products: *"We will introduce new products which are not part of the machine tools line of products. Despite that, these products may create strong synergies as in the case of lubricating oils for machines"* (The Product Manager);

- Integrated offers and premium prices: *“Our prices will always be higher than our competitors and they will be also raised in order to increase the margin. Our aim is to intensify our tailor-made integrated offer according to customers’ needs and to keep a well-perceived premium price for our clients”* (The Product Manager).

As the Sales Manager explained *“Vega’s business strategies are made up on the choice of the best available product on the market and on the production of tailor-made offers for our most profitable customers”*.

Thus, a good differentiation strategy, correlated to the ability of the company to store the products according to the request, emerged through the introduction of a typical ICS. Basically, it was necessary to have stored products that can be ordered and shipped on time. With regards to the business strategy planning, solid supports for the quantitative analysis of orders were required as well as a strong intuition about future machining market trends.

After the formalization of the strategic intentions and initiatives, the need to measure the performances related to the main critical success factors was felt, establishing the realization of a preliminary measurement system, able to respect the logic-casual relations identified, similarly to a Balanced Scorecard (BSC) model.

The CEO Giuseppe Gattino referred this need: *“In order to compete we need to measure our performance with reproducible, reliable and measurable data. Our competitors are structured companies with standardized processes and high operational efficiency. We need some indicators in order to support the strategy”*.

Hence, some analytical profiles were selected in order to test the performance of the critical processes, which were the sale process and the logistic process. Afterward, some performance indicators were selected in order to keep them into account during the periodic planning and monitoring of the strategic goals. As far as the sale process is concerned, the following indicators were identified:

- Net Marketing Contribution (NMC) = gross margin - sales and marketing costs;
- Return on Marketing Investments = NMC / marketing and sales costs;
- Customers’ performance (based on surveys): a set of quantitative and qualitative indicators about the customers’ satisfaction and their loyalty rate towards the company.

With regards to the supply chain process, these indicators were identified:

- Transportation costs / customer margin: Vega has always adopted a very advantageous corporate policy on shipments towards the most loyal customers. Indeed, the company covers the shipping cost for them. However, in such a critical period of crisis, Vega’s management must be able to understand when they need to interrupt this policy.
- Supply indicators such as:
  - Backlog: back orders / received orders;
  - Back average demand: back units / ordered units;

Stock out incidence: stock out number of articles / quantity of articles in the catalogue;

Stock out persistence: stock out number of days / total amount of working days.

- Alacrity and reliability indicators such as:

Deliver alacrity (deliver date – order date) / number of orders or number of dispatched orders in x days / number of orders;

Deliver reliability (delivery date – arranged date) / number of orders or number of dispatched orders / number of orders.

Thus, the monitoring of the differentiation strategy was supported by the progressive introduction of a typical DCS, based on a feedback mechanism, in order to avoid that inefficiency could compromise the innovation and differentiation strategic investments.

The creation of a PMS brought the firm to be aware of its capabilities and to honor progressive behaviors leading to an enhanced cooperation among employees.

#### *The organizational structure*

Till 2013 the company's organization was not clear for all of the respondents of the interviews. Furthermore, at each investigation level, a different perception of the organization was expressed. This was also dictated by the wide vision of the interviewee's role. The current perception at an operating level was the existence of a pyramidal structure headed by the owner. In this regard we recall here some deduced sentences from the interviews with the employees:

*"the head of the company is Mr. Gattino, after him Mr. Maida and Mr. Gattino's son and then the rest of them"*  
(storehouse employee)

*"the organization is divided into three levels: the management, the product managers and the employees"*  
(accounting employee)

The beginning of the succession process did not help to make the situation clearer. Indeed, it was not understood by every employee which was the role of the founder, the father, and the role of the son, who joined the company in 2011.

*"I really appreciate Mr. Giuseppe Gattino's contribution but I think that Mr. Bartolomeo Gattino is still the head here"* (storehouse employee)

*"When Mr. Bartolomeo Gattino asks me to do something, I stop doing what I am doing in order to satisfy his request. I act this way because he is the company's head and because we always worked this way"* (quality manager)

Summing up all the collected observations, a matrix structure emerged, in which the main functional areas (sales and finance, control, accounting) crossed the business units corresponding to the product lines. A more balanced allocation of the resources was useful. The presence of saturations in some

operating mechanisms, which were also part of the critical processes, was observed. Moreover, the configuration did not allow to clearly defining the process flow, which crossed the functions. In a specific question about the definition of suppliers and of the internal process customers, many interviewees replied: *"I cannot tell who are my internal customers, we do not have a real job description nor the procedures for the process management. We work as always using common sense and putting effort into our work"* (sales employee).

**Starting from a strategic consideration and the need to align the organizational structure to the processes, the management redefined in 2013 the organization of work, reinforcing the matrix structure. This structure should allow the company to be flatter and make clearer cross-functionality of the processes, without losing the division of the critical areas guided by high-level managers. The 4 main functional areas (Finance, Control, Accounting, Sales, Logistics, Information and Communication Technology) have been crossed with the 5 business units corresponding to the five product lines. The customer care and the repair service coincide with the product business units while the quality management crosses all the areas.**

## DISCUSSION AND CONCLUSION

Vega was created as a micro-enterprise. The success obtained during the '80s-'90s period led the company to grow. However, the development in its dimensions did not generate a reciprocal adaptation in the managerial system, also because the firm remained as small. The interviews clearly reveal how, over the years, Vega never went through a formal process referring both to the planning of corporate and business strategies and to the adoption of PMSs. These factors did not invalidate the growth of the company during the years of greatest success. However, they created issues of goal orientation in the last specific situation (2011-2013), characterized by the presence of a financial crisis all over the world and by a beginning in the succession process of the company.

The company has always been a family-owned firm. In this context, the activities have been rarely undertaken with a critical eye and a spirit of innovation. The absence of a vision, of a mission and of a common goal caused the fact that the organizational structure accustomed to a managerial style characterized by inactivity due to the previous success.

In 2011 the founder understood the need to prepare his succession in the company and started a professionalization process, opening to the entrance of non-family members in the management and using the competencies of external consultants and, at the same time, evaluating the possibility of attributing the role of CEO to his son, who in the meanwhile had had a significant training and experience outside the company.

The new management (the son of the founder together with the external managers) in 2011 decided to deal with some new challenges. Among them, the identification of new values in order to share them within the company, the visualization of a mission and of a vision in a way that all the employees internalize them with enthusiasm. In order to keep a leadership status in a strongly reshaped marketplace in terms of volume and turnover, the management identified new performance oriented values, a new mission, strategic goals and new strategic initiatives. The organization, reflecting a participative leadership style and a real decentralization process, through inter-functional work groups and meetings, recognized some values in order to integrate them into the mission of the future strategy. Among these values co-operation, sharing, credit, passion and success were identified. These values became the basic principles in the company way of working. Besides, they have become an essential part of the organizational structure.

As far as the consideration about the opportunity to create a strategic and an organizational model that considered the peculiarities of the family business, it was clear that this opportunity was real. Through the interplay between the family, the management team and the external consultants, the values and the ideas of the founder concerning the business were transferred to the whole firm and became general values and culture for all the employees. By this way, the management arrived at the formal definition of a new strategy, in one hand based on the strategic initiatives deliberated by the family and, in the other, based on the perception of emergent opportunities and risks by the operative managers in the firm. Therefore, the CEO, the founder's son, was supported by ICS in the strategy formulation and monitoring, encouraging opportunity-seeking behaviors, experimentation and learning through the company, which resulted in emergent strategies (Acquaah, 2013, Simons, 2000). To avoid the economic crisis in which the firm was involved, these systems permitted the top management to anticipate and handle strategic uncertain situations. It appears clear as the implementation of a typical ICS in the company permitted managers "to personally involved themselves in the decision activities" (Acquaah, 2013; Simons, 2000), influencing the formulation of a differentiating strategy. Indeed, the perception of customers' needs and the identification of new ideas and product innovation were fostered by ICS introduced in the firm.

In addition, new tools of DCS were adopted to support the strategy formulation, implementation and monitoring in the short as in the long run. Indeed, the concrete realization of improvement programs depended on the will of the family to be equipped with feedback mechanism and goal orientation, which could move the company towards a dynamic and a modern business running. Indeed, DCSs serve "to review and monitor outcomes, and correct deviations from preset measures of organizational goals, they are mechanistic systems used to tightly control actions and discourage opportunity-seeking behavior, which are perceived as deterrents to creativity and innovation"

(Acquaah, 2013; Simons, 1995). The DCS was firstly introduced to monitor the efficiency level, in order to verify that financial resources were not wasted, but invested in the differentiation strategy.

Resuming and according to Simons (1995, 2000), in Vega ICSs and DCSs work together and “the information and learning generated by ICSs can be embedded in the strategies and goals that are monitored by DCSs”. Acquaah (2013) affirms that FFs are “likely to achieve a balanced used of DCSs and ICSs to implement their business strategy, as they want to preserve socio-emotional wealth, in addition to their interest in both economic and non-economic benefits”. ICSs and DCSs, jointly together, provide the family owners and the managers, such as all the employees of the firm, with “the advantage of establishing broad constraints within which employees are expected to operate and balancing those constraints with an enabling environment to exploit innovative opportunities and facilitate the development of the capabilities required for the successful implementation of the strategy” (Acquaah, 2013). In Vega, top manager and operative managers work together in an interactive environment in order to capture emergent opportunities and innovation, but at the same time they are supported by DCSs to avoid misunderstanding and opportunistic behaviors that could preclude the achievement of strategic goals of the firm.

Concluding, we can affirm that:

- *during the process of succession, especially if characterised by a strong crisis that makes urgent a change in the business strategy, the professionalization phenomenon together with the introduction of formal MCSs are relevant organizational changes to improve strategy formulation, implementation and control (HP1 is confirmed);*
- *the interplay and the tension between formal DCSs and ICSs are very useful in a FF, in order to support the succession, in conjunction with the professionalization phenomenon, as they permit to couple the family business culture together with the formal competences of managers (HP2 is confirmed).*

## IMPLICATIONS AND LIMITATIONS

The present paper can be considered as a development in the research studies of the family business management and, in particular, it contributes to the literature concerning the effects of the implementation of MCSs in FFs, especially during a succession/professionalization process characterized by an economic crisis environment. Using an explorative case study, indeed, this article proves that, for this type of business, formal PMSs can be sustained with positive effects on succession and strategy implementation. Indeed, DCSs and ICSs and their dynamic tension represent a positive solution to maintain competitiveness above all when the founder of the firm is preparing his



succession. Indeed, ICS contributes to the emersion of new opportunities and creativeness within the business and makes possible the top manager, usually a member of the family as in our case study, to capture emergent strategic initiatives that arise from the bottom of the structure, usually represented by non-family members. By this way, the ICS supports the succession process, creating the conditions to “substitute” the competencies and skills of the founder with the competencies and the skills of all the people involved in the firm. At the same time, DCSs monitors that the strategic goals of the company deliberated by the family are well understood by all the employees, avoiding opportunistic behaviors. We underlined how the dynamic tension between ICS and DCS is fundamental to reinforce the competitive advantage in a FF, especially involved in succession processes.

We strengthened the assumptions of Acquaah (2013), who sustained that one of the functions of MCS in FFs is to support the implementation of business strategies. Furthermore, we reinforced the conclusions of Giovannoni, Maraghini, Riccaboni (2011), for which the MCSs can be formalized to make possible the reproduction of the founder’s values, culture and competencies concerning the business, in a way that can be understood by the family members, the managers and the employees. In addition, we underlined how MCSs, succession and professionalization are intertwined in FFs and how it is important that their interplays are jointly observed.

One limitation of the paper is represented by a single case study method, which makes difficult to generalize uncritically our conclusions. In this research we chose to adopt a qualitative case study methodology, focusing on a small FF, which purchases and sells technical components and services for the machine tools sector. Even if our case study is representative, it could be useful to extend our research data analysis using a multiple-case study method, with the purpose to compare strategic approaches and MCSs adopted by each company, both in the same sector and in other sectors. Furthermore, in addition to the interview technique we could also adopt additional data collection methodologies, based for example on questionnaires sent to representative employees in a sample of FFs.

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## INTERNATIONAL DIVERSIFICATION AND PERFORMANCE IN EUROPEAN SERVICE MULTINATIONAL COMPANIES

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### ABSTRACT

The relationship between international diversification and firm performance has been extensively studied in the international strategy literature, which generally assumed that the performance of a firm improves with greater multinationality. The majority of these studies were based on manufacturing firms. However, recent empirical studies have shown different impact on performance in particular with regard to service multinationals (SMNCs). As the services sector expands, the prominence of SMNCs in producing and delivering value-creating services across national borders continues to grow more than ever before. In this paper we provide an empirical evidence that support the existence of a U-shaped curvilinear relationship between multinationality and performance (which suggest an initially negative effect of international expansion on performance, before the positive returns of international expansion are realized). Moreover, we also test and we did not find significant evidence that support a S-shaped curvilinear relationship. In addition, we found that R&D intensity significantly strengthen the impact of internationalization on firm performance. We test this on cross sectional data of 92 European SMNCs from Global Top 500 Multinationals (Fortune) belonging to ten service industries. Based on the findings, implications and directions for future research are provided.

**Keywords:** *international diversification, multinationality, MNEs performance, service, SMNCs, service multinationals, R&D intensity, moderator.*

### 1. INTRODUCTION

One of the most noteworthy aspects of today's international business (IB) landscape is the growing importance of service multinationals (SMNCs). As the services sector expands, the prominence of SMNCs in producing and delivering value-creating services across national borders continues to grow more than ever before. (UNCTAD, 2012). Over the past 50 years, the importance of services has grown steadily; it is possible to find out three different waves with different characteristic (Kundu and Merchant, 2008). The first wave of SMNC's growth (1960 to 1980) involved firms like Citi Bank, Price Waterhouse and Saatchi & Saatchi and came in response to international expansion of their

manufacturing MNCs' clients. The second wave (1980 to 1990) represented the internationalization of service firms in certain sectors, such as telecommunications, when services firms ventured abroad in search of "new" markets. The third wave (1990 to present) in the internationalization of service firms came in response to the liberalization, deregulation, and privatization taking place in the service sector in developing countries.

In this context, one important topic for researchers in strategic management and international business has been the investigation of the relationship between international diversification and performance (e.g., Tallman and Li, 1996; Hitt et al., 1997; Gomes and Ramaswamy, 1999; Kotabe et al., 2002; Tsai, 2013). International diversification represents an important growth strategy (Chandler, 1962; Ansoff, 1965) that has major potential impact on firm performance. Despite the numerous studies that have examined the association between multinationality and performance, these efforts have provided evidence of conflicting results (Annavarjula and Beldona, 2000; Contractor *et al.*, 2003). However, studies examining the international diversification-performance relationship were based largely on samples of manufacturing firms. Thus it is likely that the form of the relationship between international diversification and performance observed in manufacturing firms might not apply similarly to firms in service industries. In fact, some studies based on a sample of services firms have already argued that there exist an U-shaped curvilinear relationship (Capar and Kotabe, 2003) or a S-shaped relationship (Contractor *et al.*, 2003; Tsai, 2013).

In general, service firms are expanding internationally for the same reasons as the manufacturing firms: labor costs, market access, and resources, among others (Guile, 1988; Kundu and Merchant, 2008). However, SMNCs differ from their manufacturing counterparts, along crucial business dimensions such as birth, growth, evolution, performance and sustenance (Kundu and Merchant, 2008). Moreover, the nature of service businesses is mostly intangible and the production and consumption of many services occur simultaneously owing to the impossibility of inventory in services (Habib and Victor, 1991).

Summarizing, previous studies extensively examine this issue, but they suffer from three main problems. First, there is no consensus on the shape of the relationship between a firm's internationalization and its performance. Second, usually the sample using in these studies are composed by manufacturing firms. Third, researchers have made little effort to identify the factors that play a critical role in moderating the relationship between internationalization and performance, in particular regarding service firms.

In this paper, we argue that the earlier theoretical rationale used to explain the relationship between multinationality and performance in manufacturing firms needs to be somewhat modified to account



for the differences inherent to service firms (Capar and Kotabe, 2003). Our goal is to find out the form of this relationship in "top" SMNCs and to find out the existence of a moderating effect regarding firms with high level of R&D expenditure. So, it addresses the following two questions: (1) what is the relationship between internationalization and performance for "top" SMNCs? (2) may R&D intensity in service SMNCs influences and moderates this relationship?

Thus, this work improves knowledge in to the stream of literature that refers to the internationalization of multinational companies by highlighting the form of the relationship between internationalization and performance in a relevant sample of "top" SMNCs and also empirically supporting the direct and interacting effects of R&D intensity on firm performance in the process of internationalization.

The remainder of the paper is organized as follows. First, a theoretical background and literature review of the SMNCs and of the international diversification–performance relationship will be provided. Second, this paper develops a conceptual framework and presents the research hypotheses. Third, the research methods of the study and the variables used will be explained. Fourth, the results will be presented and discussed. Finally, a review of the study will be provided in the conclusion section along with the identification of limitations and possible future directions of inquiry.

## 2. THEORETICAL BACKGROUND AND RELEVANCE

### Services MNCs

As early as the 1980s, scholars such as Daniels (1982) and Riddle (1986) examined the growing importance of services founding some demand and supply led factors. Dunning (1989) stated that these factors favored FDI as a modality for organizing the cross-border production and transaction of these services. Consequently, MNCs share of total services activities undertaken increased rapidly. Aharoni (2000) noted that an important manifestation of the changing nature of the global economy was the increasing importance of service sector as a percentage of gross national product in both developed and developing economies

The state of SMNC research was summed up by Kundu and Merchant (2008), who observed that the “the challenge lies ahead in the development of theories of service multinational enterprise to explain the intricacies of service firms”. The importance and contribution of services and SMNCs in IB caught the attention of scholars almost a quarter of a century ago (Boddewyn *et al.*, 1986, Dunning, 1989, Erramilli, 1990). Over time, researchers have attempted to draw on various theories, traditionally used for the manufacturing sector, to explain competitiveness and internationalization of SMNCs. In the 1970s and 1980s the eclectic paradigm and transaction cost theory has been widely used to explain the internationalization of SMNCs, while in the 1990s and onwards scholars have looked into

organizational capability perspective, sequential investment theory and contingency theory to explain the internationalization and performance issues of service firms.

An examination of the literature revealed certain thematic issues namely - international entry mode for service firms (Erramilli and Rao, 1993); determinants of internationalization for industry based studies of service firms located in industrialized nations (Dunning, 1993); the determinants of foreign direct investment (Li and Guisinger, 1992); sourcing strategies of SMNCs (Murray and Kotabe, 1999); spatial and economic geography issues faced by SMNCs (Zaheer and Manrakhan, 2001) and, finally, studies examining the relationship between multinationality/geographic diversification and firm performance (Capar and Kotabe, 2003; Contractor *et al.*, 2003). However, compared to studies in the manufacturing sector, empirical examination in the services sector has continued to remain grossly inadequate. The latter one is the focus of our paper.

#### International diversification and performance in SMNCs

The relationship between international diversification and performance has been widely analyzed drawing on the resource or knowledge-based view of the firm in strategic management (Barney, 1991; Kogut and Zander, 1993), and on internalization theory in the FDI-based international business literature (Buckley and Casson, 1976; Hymer, 1976). Mainstream studies support the view that a positive, linear relationship exists between international-diversity and performance (see for example the studies of Grant *et al.*, 1988; Han *et al.*, 1998).

These studies has been grounded on the theoretical assumption that firms exploit the benefits of internalization in international markets (Hymer, 1976; Rugman, 1981; Caves, 1982). Internalization of markets has advantages such as economies of scale, scope, and learning (Kogut, 1985; Ghoshal, 1987; Kim *et al.*, 1989, 1993), and sharing core competencies among different business segments and geographic markets (Hamel, 1991). In addition, firms with strong competencies that are developed at home can utilize these in international markets (Bartlett and Ghoshal, 1989). Moreover, multinational firms can gain additional competitive advantages by exploiting market imperfections (such as a less competitive environment) and cross-border transactions (such as transfer pricing) and can also achieve a greater bargaining power with increased size (Sundaram and Black, 1992). In addition, other advantages derive from greater learning or international experience (Kobrin, 1991); access to cheaper and idiosyncratic resources in foreign countries (Porter, 1990); global scanning of rivals, markets, and other profit opportunities and from better cross-subsidization, price discrimination, and arbitrage potential with larger geographic scope (Contractor *et al.*, 2003).

Despite this, another stream of research has examined a nonlinear relationship between multinationality and performance (Tallman and Li, 1996; Hitt *et al.*, 1997; Gomes and Ramaswamy,

1999; Kotabe *et al.*, 2002). According to transaction cost theory, a high level of diversification increases the governance cost of firms (Williamson, 1975); so, these studies have found an inverse U-shaped relationship between multinationality and firm performance, where performance increases up to a certain point, and then levels off. It has been argued that factors such as logistics, trade barriers, cultural diversity but also environmental factors, might increase the cost of operations along with increasing levels of international diversity.

The problems of the majorities of these empirical studies were they are based mainly on a sample of manufacturing MNEs. In fact, despite the similar motivations of SMNCs to expand internationally, the unique characteristics of service firms are likely to lead to a different pattern with respect to performance (Capar and Kotabe, 2003). Service companies, contrary to manufacturing firms, are likely to face declining performance with initial attempts at international diversification for the following reasons.

First, it is more difficult for SMNCs to benefit from scale economies and, also, suffer from diseconomies of scale in the short period (Katrishen and Scordis, 1998). Ghoshal (1987) suggests that, as firms further increase their total involvement in foreign markets, they may benefit from economies of scope and economies of scale in the long run. Second, an initial problem in the internationalization expansion is the costs of acquiring foreign market knowledge (Johanson and Vahlne, 1977) and the initial costs of a foreign firm establishing its legitimacy abroad (Zaheer and Mosakowski, 1997). After these initial costs, SMNCs may benefit from the advantages of internationalization, such as price discrimination, strategic cross-subsidization, arbitrage and so on (Contractor, 2002). Third, services supplied by multinational firms to local customers may have to be adapted more extensively than manufactured products owing to linguistic and cultural differences of the customers along with the intangible nature of most services (Patterson and Cicic, 1995; Capar and Kotabe, 2003). It has been argued that service firms suffer from diseconomies of scale when they expand abroad (Katrishen and Scordis, 1998). In fact, when a service firm makes an initial expansion abroad, it must undertake considerably higher investments than manufacturing firms that begin foreign expansion by exporting (Capar and Kotabe, 2003). Such investments are likely to increase the costs and thereby reduce the performance of these firms (Boddewyn *et al.*, 1986). The aforementioned arguments can be summarized in the following hypothesis:

*Hypothesis 1: The relationship between international diversification and performance in SMNCs will be U-shaped curvilinear, with performance decreasing up to a certain point, beyond which higher levels of international diversification will increase performance.*

From this starting points, Contractor et al. (2003), using pooled cross-section/time series data, proposed a new unified three-stage theory of international expansion that incorporates different concepts in a sigmoid hypothesis (S-shaped relationship). This study has also been confirmed by Tsai (2013) analyzing advanced emerging markets. It has been argued that the relationship between international diversification and performance varies depending on the different stage in which the firms are. In the first stage (early internationalizes) firms suffer from liability of foreignness (Verbeke, 2009), initial learning costs because of unfamiliarity with foreign markets, cultures and environments and insufficient economies of scale and a negative slope may emerge (Johanson and Vahlne, 1977). In the second stage (mid-stage internationalizes) firms gain classical internationalization benefit (Contractor, 2002) such as an increasing the efficiency, the ability to exercise global market power (Grant, 1987), but also to extend the product cycle (Vernon, 1966) and to better arbitrage national differences (Rugman, 1981) and performance increase. At the end, in the third stage of internationalization the firms expand beyond a desirable optimum level. For such firms, the incremental costs of further expansion into peripheral nations are greater than the incremental benefits. This is due in particular to: a) after having expanded in the most lucrative market, the firm is then left with minor or peripheral markets with lower profit potential; b) beyond an optimum number of nations, the growth of coordination and governance costs may exceed the benefits of further expansion, because of the complexity of global operations (Galbraith and Kazanjian, 1986). The aforementioned arguments can be summarized in the following hypothesis:

*Hypothesis 2: The relationship between international diversification and performance in SMNCs will be S-shaped curvilinear, with performance that follow three different internationalization's stages, showing at the beginning a short negative slope, then up to a certain point a positive slope, beyond which higher levels of international diversification will decrease performance.*

#### R&D intensity as a moderating effect of the relationship

Firms with intangible assets should be able to generate abnormal high returns from their foreign direct investments through scale and scope economies and through the exploitation of market imperfections in the trade of intangible assets (Kotabe *et al.*, 2002).

In particular, R&D intensity reflect the abilities to design unique products and improve product quality, but also refers to the ability to improve or develop new methods of doing business. Numerous studies such as Capar and Kotabe (2003) have demonstrated that innovative capabilities have a significant effect on technological progress or output performance. Generally, firms with a superior R&D ability create products and advance operating methods that improve organizational performance (Tsai, 2013), and thus R&D intensity has significant effects on firm performance in competitive

international markets. Moreover, firms that invest more in R&D activities increase the likelihood to develop technology-creation routines and learning regimes, which can help them to offer new products more efficiently and quickly than their rivals. So, it is expected to reinforce the impact of internationalization on firm performance (Kotabe, 1990; Zahra *et al.*, 2000). The aforementioned arguments can be summarized in the following hypothesis:

*Hypothesis 3. The impact of internationalization on SMNCs performance will be stronger for firms with higher R&D intensity than those with lower R&D intensity.*

### 3. METHODS AND VARIABLES

#### Methodology

The study relies on world's largest services companies, derived from the Fortune 500 lists (Fortune, 2013). We took the list of the largest 500 corporations in the world published annually by *Fortune* magazine; it is one of the most important annual ranking of the firm worldwide as measured by revenue. To be included in our sample, a firm had to: (1) be a service firm, (2) have the HQ in Europe, and (3) have >10% of foreign sales on total sales. We took firm level data of each firm from the Amadeus Bureau-Van Dijk database and from the annual report of each firm. Due to data availability constraints our final sample consisted of 92 SMNCs spanning ten industries. The sample is relevant because consists of major European firms from different service industries such as retail/wholesale, utility, information technology (IT) service, tourism, banking, advertising and insurance. So, these companies represent the main firm sales, diversification behavior, and innovative activities of different industries. The average annual revenues or sales of these service firms were 44.8 billion dollar, ranging from 4.5 billion dollar to 341.3 billion dollar; the average number of employees were 124,666. The average of FS/TS were 59.47 %, the R&D expenditures were 362.7 million dollar while the average of ROS was 12%.

#### Independent variable: firm performance

Return on sales (ROS) was used to measure firm performance. The choice of using this accounting based profitability measure was due largely to the fact that many previous studies have used this measure (e.g., Haar, 1989; Capar and Kotabe, 2003) and also to data availability. Although many other studies have used return on assets (ROA) for performance, data were not widely available to compute these other two indicators. But, Hitt *et al.* (1997) have indicated that both ROA and ROS have generated similar findings and that they were highly correlated ( $r = 0.91$ ). Furthermore, service firms tend to possess significant portions of intangible assets, and the degree of intangible assets is likely to differ considerably across different service industries (for example, utility firms vs consulting firms).

Thus assets-based performance measures are less likely to take this difference into consideration. Other studies such as Chang and Wang (2007) use the Tobin's Q ratio that provides information about the value of a firm as a going concern, and thus reflects investors' valuation of both the tangible and intangible assets of the firm. But, this measure leaves intangible assets out of the denominator, thus overstating the relative performance of firms with large investments in intangibles (Lindenberg and Ross, 1981). Moreover, since the market value of a firm varies with the strength of the general economy, the value of Tobin's Q may fluctuate substantially from year to year (Sharpe, 1978).

*Dependent variable: International diversification*

Consistent with the majority of previous studies (Grant, 1987; Tallman and Li, 1996; Gomes and Ramaswamy, 1999; Capar and Kotabe, 2003; Tsai, 2013), the international diversification is measured as the ratio of foreign sales to total sales (FS/TS). Ramaswamy et al. (1996) have argued for the use of single-item measures. They have cast serious doubts on multidimensional measures based on problems with content validity, criterion validity, and reliability. Other measures used, besides the FS/TS measure, in some studies include the number of countries in which the firm operates (e.g., Tallman and Li, 1996) and the ratio of foreign assets to total assets (Gomes and Ramaswamy, 1999). Hitt et al. (1997) have argued that the entropy index, used for example in the study of Chang and Wang (2007) is a more appropriate measure of international diversification. However, because of data availability constraints and for comparison purposes, the FS/TS ratio has been used in this study. This measure is also in line with the study of Rugman and Verbeke (2004), that used the same list of firms of our study (Fortune 500) to analyze the regional nature of MNEs.

*Moderator and control variables*

The variable R&D intensity is defined as the annual expenditure on R&D divided by sales (Lu and Beamish, 2004; Tsai, 2013). Companies with higher R&D intensity can achieve higher returns (Hitt et al., 1997; Kotabe et al., 2002). For example, Franko (1989) found a positive association between a firm's R&D spending and its sales growth. We used it as a moderator variable.

The effect of industry membership on firm performance has been confirmed by previous studies (Contractor et al., 2003). We controlled for industry effects by using an industry dummy, which was 1 for knowledge-based service sectors (financial services, telecommunications, insurance and banking) and 0 for capital intensive service sectors (energy & utilities, food & beverage, retail, transport postal services and tourism services). Research also indicates that firm size may partially explain the variance in firm performance in international markets (Decarolis and Reeds, 1999). We thus use firm size as one of our control variables, measured as the natural logarithm of total employees (Capar and Kotabe, 2003; Contractor et al., 2003). It has been used to control for economies and diseconomies of scale at the

corporate level. But, the effect of firm size on the performance of international diversification is ambiguous. Firm size is related to the amount of resources under managerial control. Another variable included is the *debt-to-equity ratio*, as a measure of financial leverage (Lu and Beamish, 2004) in order to capture a portion of firm's value and financial indebtedness.

#### 4. ANALYSIS AND RESULTS

To test our hypothesis, four regression models were used as presented below. The linear relationship vs the curvilinear relationship vs the sigmoid (S-shaped curve) effect of international diversification on firm performance were tested by a regression procedure using OLS estimation in order to look for the correct form of the relationship. Our focus is only on the results of 2 and 3 regressions, but we chose to include also the first regression to test the linear model. So, to test for curvilinearity, the squared and cubic terms of International Diversification (ID) were gradually entered into the baseline model. In addition, the fourth model was used to test the effect of the R&D intensity as a moderator variable in this relationship.

**Table 1 – Results of the regression analysis**

<b>Independent variables</b>	<b>1 - Linear</b>	<b>2 -Square</b>	<b>3 -Cubic</b>	<b>4 - Moderator</b>
International diversification (ID)	0.08 (2.07)*	-0.94 (-1.87)	-2.68 (-1.37) 0.38 (4.23)	0.07 (2.10) *
R&D intensity	0.41 (4.40) ***	0.39 (4.25) ***	***	0.40 (4.21) ***
Size	0.01 (0.07)	0.02 (0.22)	0.03 (0.36)	0.01 (0.06)
Industry (1= knowledge based, 0 = capital intensive)	0.30 (3.01)**	0.26 (2.63) **	0.26 (2.66) **	0.31 (3.16) **
Debt-to-equity ratio	0.03 (0.26)	0.03 (0.35)	0.04 (0.43)	0.01 (0.13)
International diversification <sup>2</sup> (ID <sup>2</sup> )	-	1.04 (2.63) *	4.83 (1.16)	
International diversification <sup>3</sup> (ID <sup>3</sup> )	-	-	-2.10 (-0.93)	
ID x R&D intensity	-	-	-	0.17 (2.97) **
R <sup>2</sup>	0.35	0.39	0.39	0.42
Adjusted R <sup>2</sup>	0.32	0.35	0.34	0.38
F-value	6.36 ***	8.81 ***	7.66 ***	9.88 ***

\* P<.05

\*\* P<.01

\*\*\* P<.001

The first equation in Table 1 is an examination of the linear effect of international diversification on performance. As can be seen, there is a statistically significant positive relationship. The second equation show that there is a positive and significant relationship at five per cent level when the quadratic term entered in the regression. It shows that there is support for our first hypothesis that there is a U-shaped relationship (curvilinear effect) between international diversification and firm performance in SMNCs. The overall model is significant at the one per cent level, with an Adj. R<sup>2</sup> of 0.35 and the explanatory power of the model increased when the squared term of international diversification, ID<sup>2</sup>, entered in the model. In the third regression, in order to investigate the possibility

of a three-stage sigmoid (S-shaped) hypothesis (Contractor et al., 2003), we entered a cubic term ( $ID^3$ ) in the model. As can be seen, there is not a statistically significant relationship and the hypothesis 2 is not supported.

Finally, to test the hypothesis that the impact of internationalization can be moderated by R&D expenditure (hypothesis 3), model 4 was proposed. This hypothesis is supported because the interaction effects ( $ID \times R\&D\ intensity$  variable) is positive and it increases the explanatory power of the model and it is significant at one per cent level. So, the interaction of R&D intensity and internationalization appear to have significant moderating impacts on the relationship between internationalization and performance relationship. Finally, looking at all the four models, we observed that R&D intensity is positive and significant in each of these meaning that a SMNCs with higher level of R&D expenditures have better performance than others with lower level. Moreover, we found an important industry effect meaning that international expansion strategy varies across the two subsamples of SMNCs and differences in reaping the positive benefits of internationalization.

## 5. DISCUSSION AND CONCLUSIONS

The topic of this paper was to find out the form of the relationship between internationalization and firm performance in huge SMNCs and to identify another factor that play a critical role in strengthen this relationship. This study found a curvilinear relationship (U) between internationalization and performance for SMNCs. So, we have confirmed the study by Capar and Kotabe (2003) that the form of the relationship between multinationality and performance is different for service firms than it is for manufacturing firms. At the same time, we improve the reliability of this study under two different sides: first, testing the hypothesis with a cubic term, we did not find the evidence that support a S-shaped relationship that has been found by Contractor et al. (2003); second, we improve the characteristic of the sample both geographically and over different sector/industry focusing on top SMNEs because the study of Capar and Kotabe (2003) focused only on medium-sized German SMNCs. Moreover, we also found that the characteristics of firms' intangible assets (R&D intensity) have an important impact on this relationship; these explain how firm heterogeneity, in particular in top companies, may strengthens the impact of internationalization on firm performance.

This work thus addresses an important gap in the literature by highlighting the form of the relationship between internationalization and performance in SMNCs and also empirically supporting the direct and interacting effects of R&D intensity on firm performance in the process of internationalization. This indicates that successful in geographic expansion depends not merely on possessing distinctive capabilities, but also on firms' intangible assets. So, this study has three



implications that are important in the international business literature. First, it improves knowledge in to the stream of literature that refers to the internationalization of multinational companies, finding empirical evidence of a particular curvilinear form relationship (U-shaped). Second, at the same time it confirms previous studies (in particular Capar and Kotabe, 2003) and improve it with testing also the sigmoid effect by inserting the cubic term in to the regression analysis and also with testing on a specific sample of "top" SMNEs. Third, it empirically tests that R&D intensity strengthens the impact of internationalization on firm performance. Summarizing, this is one of the first study that tests this relationship on a sample that is very relevant because consists of major European firms from different service industries. From this point of view, previous studies in this field limit their analysis based on a less relevant sample, for example a single European country (Capar and Kotabe, 2003) or taking firms from lists that catch also SMNCs that are in the first stages of internationalization process (Contractor et al., 2003).

This study has also some limitations. First of all, international diversification was measured by a single indicator only, namely the ratio of FSTS (such as the study of Capar and Kotabe, 2003). Ideally, it is desirable to have multiple or different indicators to capture the international activities of firms more fully. However, constraints in data availability hindered this attempt, though the foreign sales to total sales ratio used in this study still remains the most accepted and appropriate measure of international diversification. Second, a number of potential variables (and also moderator variables) such as advertising intensity (Kotabe et al., 2002) and learning capability (Tsai, 2013) has to be excluded due to data availability.

From a managerial perspective, looking at model 2, the main contribution is that the incremental effect of international diversification on firm performance of top SMNCs is expected to stay negative until international diversification, or the ratio of FS/TS, reaches approximately 46%<sup>1</sup>. Above and beyond this 46% threshold level, international diversification is expected to improve firm performance. This threshold level could be influenced by the characteristics of the sample, in particular average dimensions that are particularly high in our sample and geographic home country origins (Europe). These results open up space for further research, in particular it would be interesting to investigate these relationships in all the top SMNCs in the Fortune List and improve the sample with firms coming from all over the world (in particular US and Asia) in order to find different growth path or relationship depending on the home country origin of firms. Moreover, it could be improve the results of our analysis testing for the possibility of a M curve relationship such as the recent paper of

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<sup>1</sup> Assuming away the effect of moderator and control variables, the estimated regression equation for the curvilinear model show how international diversification affects firm performance; a partial derivative of the curvilinear regression equation is taken with respect to ID, which will be 0, if ID<sup>2</sup> IS 0.46.

Almodovar and Rugman (2014) has found in the Spanish manufacturing MNCs. Finally, future research could also focus on analyzing differences between services and manufacturing MNEs within the top 500 firms. In conclusion, this paper examined the relationship between international diversification and performance by using a sample of European service multinationals. Evidence was found in favor of a U-shaped curvilinear relationship between international diversification and performance. The results of this study also illustrate that the relationship between internationalization and performance can be significantly moderated by R&D intensity. This highlights the need for managers to consider how a firm's intangible assets leverage its competence and performance in the process of geographic expansion.

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# **COST OF CAPITAL IN SMES: THEORETICAL CONSIDERATIONS AND EMPIRICAL RESULTS CONCERNING SMES IN SOUTHWEST GERMANY**

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## **ABSTRACT**

Value-based management (VBM) is becoming increasingly important in small- and medium-sized enterprises (SMEs) due to several internal and external factors. Yet, as a result of a number of implementation barriers related to the specific characteristics of SMEs, various empirical findings suggest a limited application of VBM in SMEs. Still, there are indications of an implicit value orientation. Since the cost of capital is central to the concept of value orientation, this paper analyzes the application and determination of the cost of capital in traditional management control systems (cost accounting and capital budgeting) of SMEs. Based on the introduction of characteristics of SMEs as well as fundamentals and calculation methods of the cost of capital, difficulties concerning the transferability of capital costs to SMEs are identified. Also previous empirical results suggest a minor significance of capital costs in SMEs compared to large companies. However, with the cost of capital solely being a minor aspect in the available studies about VBM in SMEs, an empirical study on the application of the cost of capital among SMEs in southwest Germany was conducted. The results confirm the previous findings, according to which cost of capital are applied irregularly among SMEs. Also within the SMEs applying cost of capital, those are mainly determined using heuristic methods instead of the systematic approaches recommended in the literature. Therefore, an implicit value orientation based on the cost of capital could not be confirmed.

**Keywords:** *cost of capital, small- and medium-sized enterprises, Germany, value-based management*

## **INTRODUCTION**

Today, the concept of value-based management (VBM) represents a key management philosophy being widely accepted in science as well as in corporate practice (Britzelmaier 2009, p. 11; Weber et al. 2004, p. 5). While VBM is already widely established in large listed companies, also its application in small- and medium-sized enterprises (SMEs) is becoming increasingly important (Krol 2009, p. 2).

Hence, the application of the cost of capital in SMEs is discussed mainly in the context of VBM (cf. the empirical studies by Tappe 2009, Piontkowski 2009, Gonschorek 2009 and Krol 2009). Cost of capital play a key role in VBM, as this management approach considers company activities only as favourable in case the resulting return exceeds the profitability expected by the investors of the company. This specific hurdle rate of return is defined as the cost of capital (Krol 2009, p. 62f).

However, the increasing significance of VBM in SMEs, resulting from several influencing factors like growing competition and more restrictive conditions for capital procurement (Tappe 2009, pp. 46-50), is opposed to a number of implementation barriers in business practice, e.g. limited resources and deficits in knowledge (Krol and Wömpener 2009, p. 19). Also previous empirical studies give evidence that there is a contradiction between the fundamental significance of VBM for SMEs, especially concerning its main goal of an increase in company value, and its limited explicit application in these companies (Gonschorek 2009, p. 249; Krol 2009, p. 392f; Piontkowski 2009, p. 363). Still, there are indications of an implicit VBM, according to which SMEs implicitly include principles of VBM in their decision processes (Krol 2009, p. 221; Tappe 2009, p. 290). One possibility of such an implicit value orientation could be the integration of the cost of capital, as key figure of VBM, within the applied processes of cost accounting and capital budgeting in SMEs.

Based on these findings, the objective of this paper is to analyze the determination of the cost of capital in SMEs in the context of an implicit VBM. In contrast to previous studies, this paper analyzes the determination of the cost of capital in isolation and detached from the background of VBM in order to detect whether and how SMEs apply cost of capital without the explicit implementation of a VBM system. Therefore, the application areas of the cost of capital in internal management (cost accounting and capital budgeting) are considered.

The paper first discusses characteristics of SMEs in general. In a next step, the fundamentals of the cost of capital as well as application areas and common calculation methods are introduced. In this context, also the transferability of the established calculation methods to SMEs and alternative calculation methods are discussed. After a review of previous empirical findings on the application of the cost of capital in SMEs, the main results of an empirical study among SMEs in the Southwest of Germany are presented. The paper finally summarizes the findings and highlights areas for further research.

## **CHARACTERISTICS OF SMES**

As this paper discusses the cost of capital in the context of SMEs, the concept of SMEs needs to be defined and characterized in a first step. Despite the undoubted economic significance of SMEs in Germany and Europe, until now, there is no uniform definition of SMEs in the literature (Tappe 2009, p. 11f). Yet, in science and business practice several concepts have been established in order to

distinguish SMEs from other companies. Basically, those approaches can be divided into quantitative and qualitative definition concepts (Flacke 2006, p. 10).

Common quantitative definitions for SMEs used in Germany are those by the European Commission and by the Institute for Research into Small and Medium-Sized Businesses (Institut für Mittelstandsforschung, IfM) Bonn. Furthermore, also the German commercial law provides quantitatively defined company classes, whose primary purpose however, is not the definition of SMEs in itself. Instead, these classes serve as a basis for obligating limited companies and limited partnerships to prepare and disclose annual financial statements (Flacke 2006, p. 11). Each quantitative definition concept generally aims at the size of a company (Schachner et al. 2006, p. 600; Tappe 2009, p. 11). While the IfM Bonn only considers turnover and number of employees, the German Commercial Code and the European Commission additionally use the balance sheet total for measuring the company size (Flacke 2006, p. 11f). The IfM Bonn designates companies as SMEs in case they have less than 500 employees and an annual turnover of less than 50 million euro. According to this concept, both quantitative criteria need to be fulfilled at the same time (IfM Bonn 2012, p. 174f). In contrast to this, the definitions by the European Commission (EC) and the German Commercial Code (GCC) require the number of employees to be within a certain range (EC: 10 to 249, GCC: 10 to 250). Further, either turnover (EC: 2m to < 50m EUR, GCC: 0.7m to 32.12m EUR) or balance sheet total (EC: 2m to < 43m EUR, GCC: 0.35m to 16.06m EUR) of the company needs to match the corresponding dimensions (Krol 2009, p. 14).

Although the introduced quantitative criteria are considered as strong indicator for SMEs (Segbers 2007, p. 59), the exclusive use of quantitative definitions for SMEs is often criticised in the literature, as they leave out certain qualitative characteristics of SMEs and the defined threshold values seem to be chosen arbitrarily (Behringer 2009, p. 8; Krol 2009, p. 15). Due to the heterogeneity of SMEs, there are a vast number of qualitative criteria. A prevalent qualitative characteristic of SMEs is the strong impact of the entrepreneur's personality on the company. Often, this is reflected directly by a unity of ownership and management (Mugler 1995, p.18ff) or indirectly by holding large parts of the company shares. In this context, the term family business is commonly used as synonym for SME (Gonschorek 2009, p. 44). Also the absence of capital market orientation is an established qualitative criterion for SMEs in the literature (Ang 1992, p. 185). Despite its declining importance due to the fact that SMEs increasingly strengthen their equity base by going public without losing their SME-specific character (Behringer, 2009, p. 35), especially this criterion could be relevant for this paper, since the determination methods for the cost of capital in listed companies differ from those in non-quoted companies (Mugler 1995, p. 23; Krol 2009, p. 21). Finally, SMEs are usually characterized by specific organizational structures with flat hierarchies and little standardised processes compared to large

scale enterprises (Pfohl 1997, p. 20ff). Equally, as a result of limited resources, management control systems of SMEs are often restricted (Muggler 1995, p. 244), being also relevant in the context of the determination of the cost of capital.

Recent publications on SMEs use a combination of quantitative criteria to demarcate SMEs from microenterprises and qualitative criteria to distinguish them from large scale companies (Gonschorek 2009, p. 98ff; Tappe 2009, p. 198f).

## **FUNDAMENTALS AND COMMON CALCULATION METHODS OF THE COST OF CAPITAL**

Regarding an investment, the cost of capital represents the rate of return on capital employed expected by the corresponding investors. Consequently, an investment at least has to meet this expectation of return in order to attract capital. From the investors' perspective the cost of capital has the characteristic of opportunity costs. By allocating capital to a specific investment, they forego providing capital to alternative investments with comparable risk structure and duration and therefore also relinquish the related returns. With growing risk also the expected return and hence the cost of capital increases. Usually, the cost of capital is expressed as a percentage of capital employed (Pratt, Shannon 2010, p. 3; Stewart 1999, p. 431f). From the company perspective the cost of capital represents the minimum rate of return expected as adequate compensation by the providers of equity and debt capital (Brealey et al. 2011, p. 242). Hence, the company cost of capital is divided into cost of equity and cost of debt, representing the expected returns of lenders and investors in isolation (Britzelmaier 2009, p. 69ff). Cost of capital can be applied in 3 different areas of management control (VBM, cost accounting, capital budgeting), whereas deviating terminologies for the concept of capital costs can be found. Another application field is the evaluation of companies based on capitalized earnings (Exel, Meister 2011, p. 74; Dörschel et al. 2009, p. 5). However, since this paper focuses on the cost of capital in management control systems, this aspect will not be considered in the following discussion.

In the different approaches of VBM the cost of capital play a significant role for being central to the key objective of these management concepts. All VBM concepts aim at a permanent and sustainable increase in shareholder value (Britzelmaier 2009, p. 13), whereby company activities only contribute to value creation in case the resulting return exceeds the company cost of capital (Krol 2009, p. 62f). In contrast to the traditional accounting approaches, which only consider the cost of debt, the total cost of capital including the cost of equity has to be charged against income in order to determine the respective value based key performance measure (Hauser 1999, p. 400).



Apart from the explicit consideration in VBM, the cost of capital is also applied within traditional management control instruments. In cost accounting, being used as period-based and short-term oriented management control instrument (Hofberg 2004, p. 271), the concept of the cost of capital is integrated by the application of imputed interest charges. Despite the deviating terminology, also this specific cost element represents the cost of capital employed within the enterprise (Jórasz 2009, p. 92). Imputed interest charges are calculated by multiplying the estimated imputed interest rate by the operating capital of the company (Olfert 2010, p. 120). Subsequently, the resulting interest charge is either considered as fixed overhead in the operating profit statement or assigned to cost centres according to the proportional operational capital and allocated to cost units in a second step (Hofberg 2004, p. 272; Coenenberg et al. 2009, p. 91). In both cases, the interest expenses recorded in financial accounting need to be excluded in cost accounting first (Jórasz 2009, p. 93). In the literature, imputed interest charges are most commonly applied for both debt and equity capital. This approach is mostly preferred over the other existing concepts in cost accounting, according to which imputed interest charges are only used for debt or not applied at all, neither for debt nor for equity (Götze 2010, p. 55; Jórasz 2009, pp. 92-98; Coenenberg et al. 2009, pp. 86-91; Olfert 2010, pp. 117-121). Consequently, in case the applied imputed interest charges correspond to the total cost of capital, also within cost accounting the return expected by lenders and investors is implicitly considered in the operating profit statement.

Also in static and dynamic capital budgeting, applied for long-term and project oriented management control (Hofberg 2004, p. 271) the cost of capital play a central role. Since static capital budgeting methods (cost/profit/profitability comparison calculation, static amortization calculation) refer to cost accounting figures (Zantow 2007, pp. 406-409; Perridon et al. 2009, pp. 33-47) and the usage of the cost of capital within those methods thus depends on the type of application in cost accounting, these approaches do not need to be regarded in detail again. In dynamic capital budgeting (net present value method, internal rate of return method, annuity method, dynamic amortization calculation), however, the cost of capital are integrated in a different manner (detailed description of those methods cf. Zantow 2007, pp. 430-449). Instead of costs and revenues, those methods consider future cash inflows and outflows at various specific points in time during the investment period (Perridon et al. 2009, p. 49). For determining the present value of those cash flows, the cost of capital is used as discount rate (Zantow 2007, pp. 430-449). The reason for this is again the already introduced principle of opportunity costs (Brealey et al. 2011, p. 51ff). The adequate discount rate basically depends on the individual risk of the regarded investment project. However, it is reasonable to at least start with the company cost of capital for each investment project, as it represents the expected return on investment

projects with average company risk. For projects containing a deviating risk profile, the discount rate can be adjusted in a second step (Brealey et al. 2011, p. 242f).

In each of the relevant application areas usually the weighted average cost of capital (WACC) is calculated. While this approach is especially prevalent in VBM and dynamic capital budgeting (Stewart 1999, p. 433f; Rappaport 1986, p. 55; Brealey et al. 2011, p. 244), in cost accounting, for reasons of simplification, also alternative heuristic approaches are used instead of calculating the total cost of capital systematically and in accordance with the WACC approach. In these cases, for instance, the interest rate of government bonds increased by a risk premium, the average borrowing rate or the maximum borrowing rate of the company is utilized as the total cost of capital. Still, also in cost accounting the WACC is preferred in the literature (Jórasz 2009, p. 96; Coenenberg et al. 2009, p. 89ff). Despite different possible calculation methods, from a theoretical perspective uniform cost of capital in the different areas of management control is favourable, since in this case, long-term oriented capital budgeting and short-term based cost accounting show the same results concerning performance measurement, as suggested by the theorem of Preinreich and Lücke (Kruschwitz 2011, p. 159ff).

The WACC determines the total cost of capital of a company by weighting the cost of debt and the cost of equity rate according to the capital structure. It is calculated using the following formula (e.g. Britzelmaier 2009, p. 69f):

$$WACC = r_{(equity)} \times \frac{equity}{equity + debt} + r_{(debt)} \times (1 - t) \times \frac{debt}{equity + debt}$$

where WACC is the weighted average-cost of capital,  $r_{(equity)}$  the cost of equity rate,  $r_{(debt)}$  the cost of debt rate and  $t$  the company tax rate. As indicated by the formula, the tax effect of the cost of debt (the so-called tax shield:  $1 - t$ ) needs to be deducted, which results from the fact that borrowing costs are recognized as expense and therefore reduce income tax expenses (e.g. Coenenberg et al. 2009, p. 828). For equity and debt capital, market values instead of book values are used, since those represent the actual financing conditions of a company. The realization of hidden reserves results in a higher equity share (e.g. Brealey et al. 2011, p. 244). Furthermore, the use of the future target capital structure is mostly recommended in the literature (Britzelmaier 2009, p. 69; Copeland et al. 2002, p. 252).

The cost of debt should represent the interest rate to which a company is able to borrow new long-term capital (Stewart 1999, p. 435), with the corresponding interest rate being derived from the current borrowing conditions of a company (Rappaport 1986, p. 56). For this purpose, for instance, the yield to maturity of listed debt instruments can be used. In absence of listed debt instruments, alternatively, the average yield to maturity of a sample of corporate bonds issued by companies with a comparable

rating can be applied (Stewart 1999, p. 435; Copeland et al. 2002, p. 260f; Britzelmaier 2009, p. 71f). Apart from this market oriented approach, also the weighted average cost of debt based on all components of debt which are tied up in the regarded company can be determined (Coenenberg et al. 2009, p. 828). In this context, non-interest-bearing liabilities are excluded from the cost of debt, whereas in case of provisions the application of cost of debt is argued controversially in the literature (Britzelmaier 2009, p. 71f). For financial liabilities the cost of debt is derived from the contractually agreed interest rates, representing the prevailing market conditions at the time of the contractual agreement and serving as a basis for the future-oriented cost of debt (Coenenberg et al. 2009, p. 828; Britzelmaier 2009, p. 72). The methods for issued debt instruments were already previously discussed. Regarding SMEs, the applicability of those approaches does not seem to be a major issue. Although the market oriented method should be applied rarely due to the high significance of bank loans in the funding structure of SMEs (Preysing 2012, p. 12), the determination of the weighted average borrowing costs derived from contractually agreed interest rates does not represent an obstacle for SMEs.

The cost of equity, standing for the expected return of an investor compared to alternative investments with a similar risk and payment structure, (e.g. Hostettler 2002) represents the more complex part of the cost of capital. The common approaches in the literature are each based on neoclassical capital market models (Zimmermann, Meser 2013, p. 3). These models include the following (Britzelmaier 2009, p. 73f): Capital Asset Pricing Model (CAPM), Arbitrage Pricing Theory (APT), dividend discount model and market-derived capital pricing model. Although the APT has several advantages over the CAPM (e.g. Pankoke, Petersmeier 2009, p. 129), only the CAPM shall be introduced in the following due to its dominant role in business practice (Stehle 2004, p. 917; Zimmermann, Meser 2013, p. 9).

The CAPM was developed by Sharpe, Lintner and Mossin and is based on the portfolio theory of Markowitz as well as on the separation theorem of Tobin (Garz et al. 2004, p. 65). The basic idea of the CAPM is the explanation of the correlation between return and risk of an investment alternative in market equilibrium (Specht, Gohout 2009, pp. 108-111). According to the CAPM, the expected return of an investment option, e.g. company shares, rises with increasing systematic risk. The systematic risk represents the market risk, which all companies, however to different extents, are exposed to, and depends exclusively on macroeconomic factors. In contrast to that, the unsystematic risk, resulting from company specific, internal factors, is not reimbursed, since it can be diversified (Pankoke, Petersmeier 2009, p. 112; Britzelmaier 2009, p. 74). These basic assumptions finally lead to the following equation for the cost of equity (Pankoke, Petersmeier 2009, p. 113):

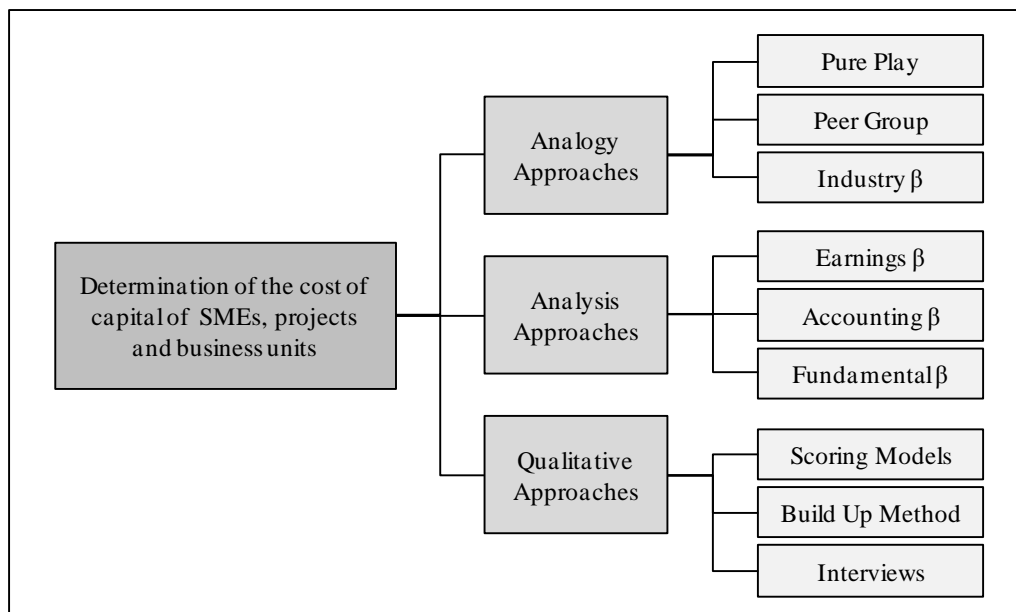
$$r_{(equity)} = r_{(risk-free)} + (r_m - r_{(risk-free)}) \times \beta$$

Thus, the cost of equity  $r_{\text{(equity)}}$  is equal to the yield of a risk-free investment  $r_{\text{(risk-free)}}$ , usually derived from the yield of highly accredited government bonds, plus a risk premium. The risk premium again results from multiplying the excess return of the market compared to a risk-free investment ( $r_{\text{(m)}} - r_{\text{(risk-free)}}$ ) by the specific systematic risk of the company in relation to the market risk, the so-called  $\beta$  (Vogler 2009, p. 382). For calculating the risk premium, the market portfolio, which is usually represented by a specific market index (e.g. the German Stock Index), needs to be determined in a first previous step (Watrin, Stöver 2012, p. 119f). Subsequently, the company specific  $\beta$ -factor is calculated by conducting a linear regression analysis between the yield on shares of the regarded company and the yield of the chosen market at the same points in time (Pankoke, Petersmeier 2009, p. 121).

Despite its prevalence in science and business practice, the different assumptions of the CAPM result in some limitations. For one thing, criticisms are related to the general assumptions of the portfolio theory as fundament of the CAPM (e.g. Specht, Gohout 2009, pp. 108-109). Additionally, it is argued that apart from the market yield also additional factors, not considered by the CAPM, have influence on the yield of a share (Ziegler et al. 2007, p. 356). In the context of the research topic of this paper, especially limitations concerning the transferability to SMEs need to be discussed. Since SMEs are mainly not listed (see section 'characteristics of SMEs'), the required  $\beta$ -factor cannot be calculated by linear regression analysis based on the stock yields, as suggested in the basic form of the CAPM (Pankoke, Petersmeier 2009, p. 121). Furthermore, in case of SMEs, the application of specific risk premiums for additional unsystematic risks and illiquidity risks compared to large scale companies are suggested (Balz, Bordemann 2007, p. 737; Bucher, Schwendener 2007, p. 345). Despite these criticisms and due to the lack of a more adequate model, the application of the CAPM, supplemented by premiums for the additional risks, is the preferred method for determining the cost of equity in SMEs from a theoretical perspective (Peemöller 2005, p. 33; Palliam 2005, p. 338f). For this purpose, also alternative approaches for the determination of the obligatory  $\beta$ -factor are available.

## ALTERNATIVE CALCULATION METHODS FOR SMES

As illustrated in figure 1, there are several methods to determine the  $\beta$ -factor and hence the cost of equity for SMEs without stock market listing. Those can be divided in 3 categories: analogy approaches, analysis approaches and qualitative approaches.

**Figure 1:** Alternative approaches for determining the cost of capital of SMEs

**Source:** own illustration, based on Britzelmaier et al. 2012, p. 231.

#### *Analogy approaches*

Analogy approaches in general derive the  $\beta$ -factor of a non-listed company from  $\beta$ -factors of comparable listed companies (Arbeitskreis Finanzierung 1996, p. 552). The basic requirement for the projection of  $\beta$ -factors on non-listed companies is the existence of listed enterprises that are similar concerning operating activities, business environment and capital structure (Peemöller 2005, p. 33). Based on the number of reference companies, 3 methods can be distinguished (Steinle et al. 2007, p. 206).

The pure play method compares a non-listed company with a single listed company whose  $\beta$ -factor can be determined, using market data. Therefore, the systematic risk of the reference company needs to be equal to that of the underlying company due to a comparable company structure (Pfister 2003, p. 88). The main difficulty of this technique is the identification of a reference company with comparable systematic risk based on objective (size, industry, capital structure) as well as subjective (e.g. competitive positioning) criteria. In case a fully comparable company cannot be identified, adaptations need to be made in order to match both companies (Arbeitskreis Finanzierung 1996, p. 552).

Another method is based on the transfer of the average  $\beta$  of listed companies within a specific industry to a non-listed company of the same industry. The basic assumption in this concept of industry  $\beta$  is that the systematic risk of a company substantially depends on the industry it belongs to (Peemöller 2005, p. 33). The third technique within the analogy approaches is the peer group method. Like in the industry  $\beta$  approach, also this method transfers the average  $\beta$  of a group of listed

companies to a non-listed company (Steinle et al. 2007, p. 206). However, the reference companies are not selected because of the belonging to the same industry but due to a high degree of homogeneity compared to the underlying company concerning factors like company size, products, cost structure, markets and strategic orientation (Arbeitskreis Finanzierung 1996, p. 554).

The main advantage of the latter methods over the pure play technique is the reduction of statistical estimation errors as well as the balancing of extreme values (Arbeitskreis Finanzierung 1996, p. 553; Peemöller 2005, p. 33). Nevertheless, all approaches are related to the issue of identifying comparable companies and reliable information (Peemöller 2005, p. 33; Steinle et al. 2007, p. 207).

#### *Analysis approaches*

In case reliable market data of comparable companies is not available, analysis approaches represent another possibility to determine the  $\beta$ -factor of a non-listed company (Bufka et al. 1999, p. 118). The existing techniques in this area (earnings  $\beta$ , accounting  $\beta$ , fundamental  $\beta$ ) all derive the systematic risk of the underlying company and hence its  $\beta$  from economic determinants (Arbeitskreis Finanzierung 1996, p. 554). The earnings  $\beta$  approach, for instance, uses earnings figures as proxy indicator for the systematic risk of non-listed companies instead of the share price on the stock market, which is the original risk indicator in case of listed companies. Under the assumption that those earnings figures are basically exposed to the same influencing factors as share prices and thus fluctuate to the same extent in case of certain events, a systematic correlation between market prices and earnings figures can be derived. Based on these correlations, the earnings  $\beta$  of non-listed companies can be calculated (Arbeitskreis Finanzierung 1996, p. 556). While earnings  $\beta$ s only consider profit in order to derive the systematic risk, accounting  $\beta$  methods integrate additional accounting figures. Fundamental  $\beta$  approaches, apart from accounting figures, moreover include macroeconomic and industry-specific determinants (Peemöller 2005, p. 34).

In case the analysis approach is applied, the fact that within the model, empirical yields on shares are avoided is considered advantageous. Yet, it needs to be questioned whether accounting figures are suitable for determining the systematic risk objectively, since those can be manipulated to a certain extent by accounting policy (Schütte-Biastoch 2011, p. 187). Besides, a strong empirical correlation between accounting figures and market valuation can be only achieved, if many explanatory factors are included. This is especially true for fundamental  $\beta$  approaches. However, the complexity of those models contrasts the lack of resources which is characteristic for SMEs, as mentioned above (Peemöller 2005, p. 34).

#### *Qualitative approaches*

Qualitative approaches, as third possibility for an alternative determination of  $\beta$ , evaluate the systematic risk of a company qualitatively and based on the subjective assessment of several risk

indicators (Steinle et al. 2007, p. 207). These include scoring models, the so-called build up method as well as the qualitative interviewing of investors and managers (Peemöller 2005, p. 34; Pratt, Grabowski 2010, 87ff; Damodaran 2012, p. 16ff).

The common characteristic of scoring models is the derivation of the systematic risk from a structural analysis of business activities and business environment (Arbeitskreis Finanzierung 1996, p. 557). One of the most common scoring models is that developed by the Boston Consulting Group, which determines the cost of equity directly by adding risk discounts or premiums to a predefined basic risk. The amount of discounts and premiums is deduced by a qualitative assessment of the company using a criteria matrix with criteria like market, competitors, products/concepts, market entry barriers and cost structure (Lewis 1994, p. 895ff). The build up method adopts a similar approach. Here, the cost of capital is determined by adding subjectively defined risk premiums to the yield of a risk-free investment. The risk premium includes a premium for the general risks of equity, for risks related to the company size and for company specific risks (Pfister 2003, p. 226; Pratt, Grabowski 2010, p. 87ff).

Another very pragmatic method is the questioning of investors and managers on their estimation of risk. Since the cost of equity are defined as expected risk-adequate return on capital employed by the investors, the basic idea is that direct consulting of the investors leads to good results (Damodaran 2012, p. 17). Additionally, managers can be queried, as they have the best knowledge about the operational and strategic direction of the company and thus should give a good estimate on the systematic risk (Copeland et al. 2002, p. 371). For the final assessment of the introduced qualitative approaches, it needs to be stated that all of them have clear benefits due to their simplicity and practical feasibility, whereas the high degree of subjectivity in all of those approaches is considered as a major drawback (Pfister 2003, pp. 224-226; Arbeitskreis Finanzierung 1996, p. 557).

## LITERATURE REVIEW

The previous theoretical discourse on the cost of capital in SMEs reveals that the major problem is the transferability of the recommended calculation methods for the cost of equity to SMEs. Despite the introduced modifications of the CAPM, there is no established standard model, as it exists for large listed companies. Therefore, an analysis of previous empirical findings on the determination of the cost of capital in SMEs seems to be suitable.

There are only few empirical studies which specifically cover the topic of application and calculation of the cost of capital in companies (Geginat et al. 2006; Weißenberger, Ulmer 2004; annual cost of capital study by KPMG, e.g. KPMG 2012). However, since those studies either mainly refer to large scale enterprises or do not separately disclose particular results for SMEs, their outcomes are not relevant for the topic of this paper. For this reason, it seems necessary to review empirical studies on

SMEs, which do not explicitly consider, but still implicitly affect the issue of cost of capital due to their specific research topic. This criterion applies to the empirical studies on the application of VBM in SMEs by Krol 2009, Tappe 2009, Piontkowski 2009 and Gonschorek 2009. In the following, those studies are analyzed in more detail with regard to their results on the application and calculation of the cost of capital in SMEs, serving as starting point for the following empirical study introduced in this paper.

Due to the lack of a uniform definition of SMEs, the definition criteria applied in the different studies need to be displayed and compared in a first step. Krol 2009 and Piontkowski 2009 identify SMEs by considering the quantitative definition criteria established by the IfM Bonn (number of employees and turnover). While Piontkowski 2009 classifies a company as SME as soon as it meets one of both quantitative criteria, according to Krol 2009 a company needs to fulfil both criteria in order to be categorized as SME (Krol 2009, p. 162; Piontkowski 2009, p. 359). Also Gonschorek 2009 and Tappe 2009 use the quantitative criteria by the IfM Bonn as a basis for defining SMEs, but supplementary add qualitative criteria in a second step. According to their definition schemes, companies exceeding both quantitative criteria are still classified as SMEs in case they fulfil certain qualitative attributes (Gonschorek 2009, p. 98ff; Tappe 2009, p. 198f). The comparison of the different definitions applied shows that all studies and therefore also their empirical findings are based on SMEs in the broader sense. However, the identified deviations need to be taken into consideration, especially when comparing specific empirical results among those studies.

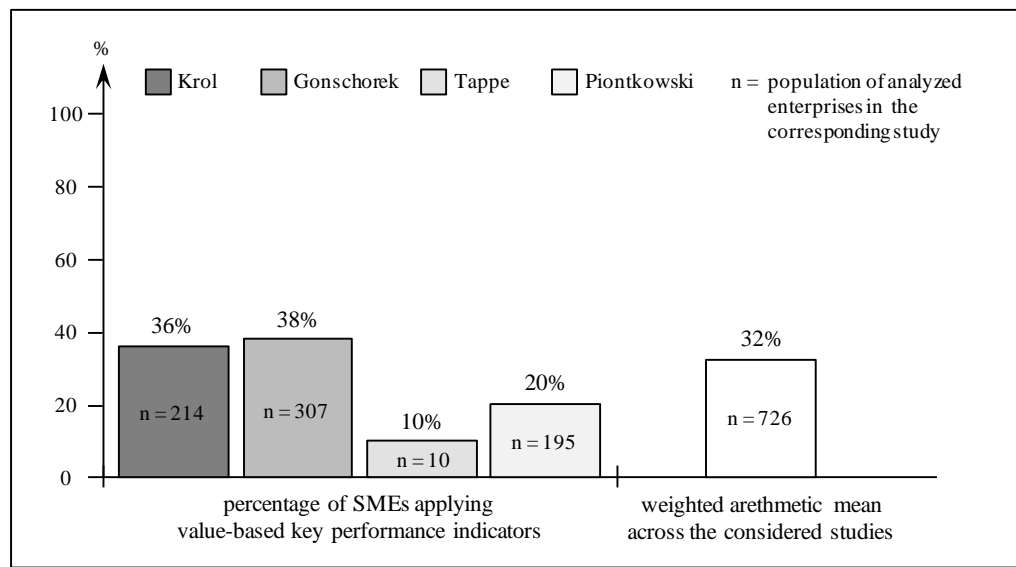
While the empirical results of the studies by Krol 2009 (including 158 SMEs), Piontkowski 2009 (195 SMEs) and Gonschorek 2009 (307 SMEs) are each based on a quantitative survey, Tappe 2009 derived his findings from a qualitative study using expert interviews (10 SMEs). Within those studies, there are basically two sections from which information about the application and calculation of the cost of capital in SMEs can be derived. On the one hand, empirical results on the general application of VBM in SMEs implicitly also give information about the application of cost of capital, as the cost of capital are a crucial part of VBM concepts and need to be calculated according to certain standardized rules within these concepts. Corresponding results can be found in each of the available studies. On the other hand, within most of the regarded studies, it is explicitly asked whether cost of capital serve as a basis for capital budgeting. Piontkowski 2009 solely determines whether cost of capital are used for capital budgeting in general (Piontkowski 2009, p. 360f), whereas the surveys of Krol 2009 and Gonschorek 2009 also give details about the applied calculation methods (Krol 2009, p. 191ff; Gonschorek 2009, p. 179ff). Tappe, on the other hand, provides no direct empirical results on the determination of the cost of capital within specific areas of managerial accounting. However, as his study comes to the result that the cost of capital generally has no significance on the operational level



within SMEs, he points out the necessity to include the cost of capital as opportunity costs to compensate capital commitment (Tappe 2009, p. 282).

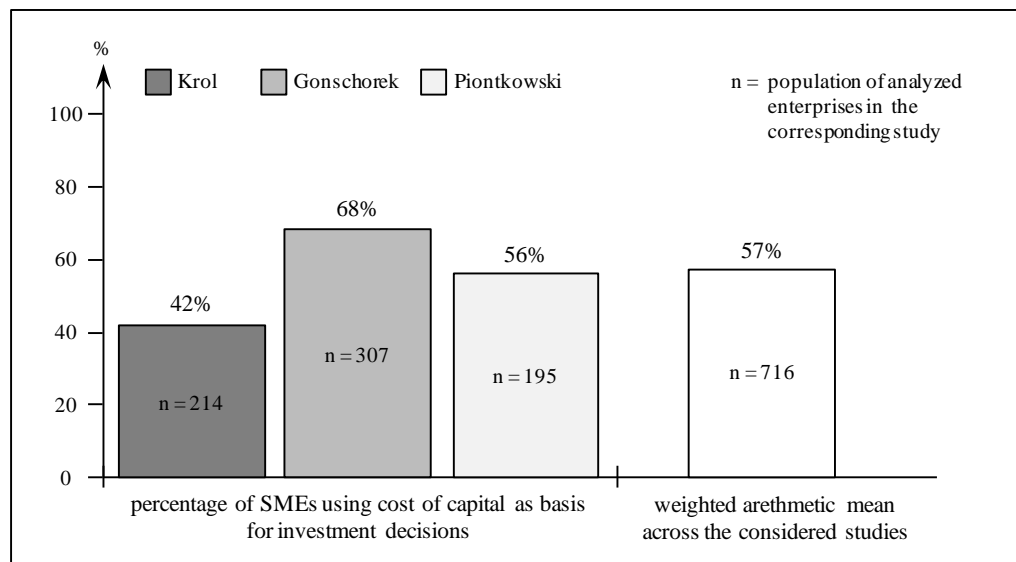
The empirical results concerning the application of VBM in SMEs, displayed in figure 2, reveal that SMEs mainly use traditional management concepts instead of VBM. Therefore, it can be concluded that also the application of the cost of capital within the area of VBM is very limited among SMEs.

**Figure 2:** Application of value-based key performance indicators among SMEs



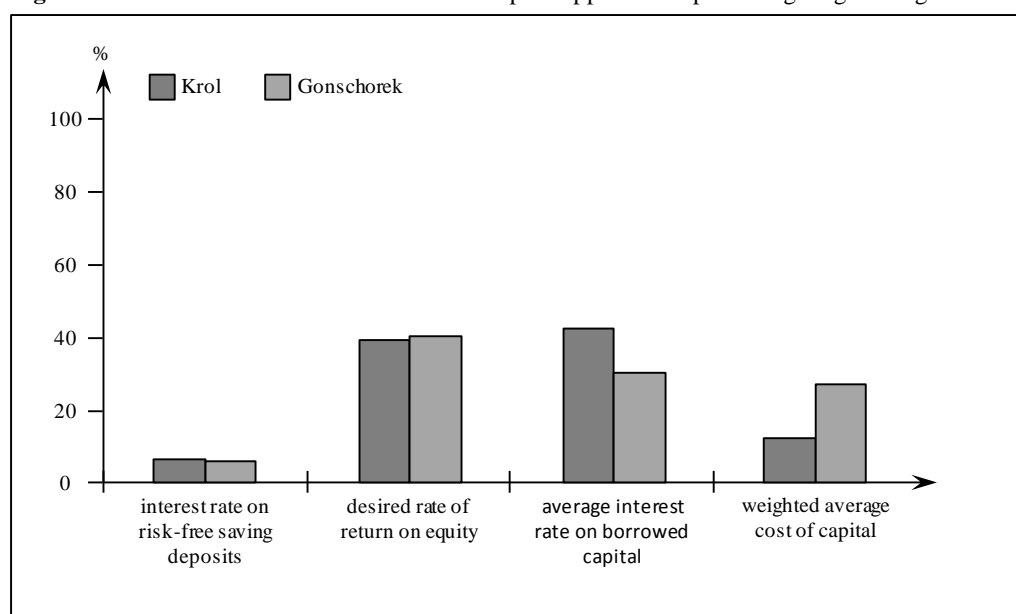
**Source:** own illustration, based on data by Krol 2009, p. 184f; Tappe 2009, p. 213; Piontkowski 2009, p. 362; Gonschorek 2009, p. 177.

When taking a look at capital budgeting as application area for the cost of capital, it can be stated that across the studies by Krol 2009, Piontkowski 2009 and Gonschorek 2009 the majority of the queried SMEs uses the cost of capital as basis for capital budgeting and profitability calculations (see figure 3). As already mentioned, Tappe 2009 comes to the result that the cost of capital are not of importance for SMEs in this application area (Tappe 2009, p. 282). However, due to the small population of only 10 enterprises in his study, those results cannot be considered as statistically representative.

**Figure 3:** Cost of capital as basis for investment decisions in SMEs

**Source:** own illustration, based on data by Krol 2009, p.191f.; Piontkowski 2009, p. 360; Gonschorek 2009, p. 180.

Although each of the regarded studies covers the extent to which cost of capital are applied in SMEs, only Krol 2009 and Gonschorek 2009 address the applied methods for determining the cost of capital. Both conclude that among the queried SMEs which generally determine cost of capital the majority includes the cost of equity within the cost of capital. Furthermore, according to the outcomes of both studies, SMEs most often use the desired minimum rate of return on equity as well as the average interest rate on borrowed capital when determining the cost of capital. In contrast, weighted average cost of capital as dominant calculation method among large scale enterprises (Geginat et al. 2006, p. 13; KPMG 2012, p.8) are only rarely applied (see figure 4).

**Figure 4:** Calculation methods for the cost of capital applied in capital budgeting among SMEs

**Source:** own illustration, based on data by Krol 2009 p. 193f; Gonschorek 2009, p. 180.

In conclusion, the findings on the application of the cost of capital within the regarded studies show that the cost of capital was applied only irregularly among SMEs at the time the studies were conducted. Especially the cost of equity was often neglected among SMEs. Moreover, it needs to be emphasised again that, so far, there are no studies which are explicitly focused on the application and determination of the cost of capital in SMEs. With the cost of capital being a key component of VBM, a survey on this topic seems to be essential for further studies on VBM in SMEs. For this purpose, the empirical results of the study introduced hereafter are supposed to give first indications on the extent of application and employed calculation methods for the cost of capital in SMEs.

## METHOTODOLOGY

### *Research hypotheses*

Based on the initial theoretical considerations and the analysis of previous empirical results on the application and determination of the cost of capital in SMEs, 7 hypotheses for the empirical study of this paper are derived in the following.

- H1: In case a company is a SME, the cost of capital generally plays a minor role.
- H2: The larger a SME, the higher the probability for the application of cost of capital within the company.

A minor role of the cost of capital in SMEs is assumed, since SMEs are faced with restricted resources and insufficiently developed processes leading to a limitation of management control systems, which was already identified as a characteristic of SMEs in this paper. This assumption is also supported by some of the introduced empirical studies, especially by those of Tappe 2009. Furthermore, it is expected that an increase in company size and management capacities finally leads to the implementation of sufficiently developed management control systems as precondition for the calculation of cost of capital.

- H3: Of those SMEs that currently do not apply cost of capital a majority plans to introduce them within the next 3 years.

As introductorily referred to, SMEs are increasingly confronted with incentives for the introduction of VBM systems. In this context, also a growing awareness of the cost of capital as key figure of VBM is presumed.

- H4: Capital market based models in their basic form are hardly applied among SMEs, as SMEs are mainly not listed.

One of the identified main characteristic of SMEs in this paper is the lack of capital market orientation. Moreover, the application of capital market based models is not possible for non-

listed SMEs, as the theoretical configuration of those models requires a linear regression of the return of a share against the return of the market portfolio in order to determine the cost of equity (see section 'common calculation methods of cost of capital'). Consequently, a small portion of listed SMEs should result in a low degree of application of those models.

H5: Capital market based models are generally hardly applied among SMEs, as SMEs mainly consider them to be too complex and elaborate.

The CAPM in its basic form as well as its additionally introduced variations (analogy, analysis and qualitative approaches) are characterized by a high degree of complexity (see sections 'common calculation methods of cost of capital' and 'alternative calculation methods for SMEs'). Contrasting this complexity with the already mentioned limited resources and management control systems as specific characteristic of SMEs, a low degree of application of those models has to be assumed.

H6: Among those SMEs which determine the cost of equity, the most common method applied is determining the rate of return on equity required by the company owners.

H7: Among those SMEs which determine the cost of debt, the most common method applied is determining the average borrowing costs of the company.

The previously analyzed studies by Krol 2009 and Gonschorek 2009 conclude that most of the regarded SMEs use the average borrowing costs for determining the cost of debt, whereas in case of the cost of equity the rate of return required by the company owners is applied most frequently. Due to the similarity concerning the applied definition of SMEs, it is assumed that their empirical results are confirmed in this paper.

#### *Data collection method*

In order to verify the proposed hypothesis and gain additional descriptive results a quantitative empirical survey among SMEs was conducted. The data was collected through a questionnaire which was provided online via a server. The questionnaire was pretested by graduate students of Pforzheim University with work experience in managerial accounting departments of SMEs. Based on their feedback, the questionnaire was modified. The survey was conducted in two waves in May and June 2013. In a first step, the online survey was published by the International Controller Association in the news section of its website (URL: <http://www.controllerverein.com/e-news/e-news-25.05.2013.html>). Additionally, 1,000 companies in southwest Germany were consulted directly via e-mail. Therefore, a mailing list was obtained from the Chamber of Industry and Commerce Baden-Württemberg. Due to the applied data collection method, the empirical results cannot be considered as statistically representative.

*Research Definition of SMEs*

Based on the previously introduced prevailing definition concepts of SMEs in the literature, a research definition of SMEs was developed. Since merely quantitative definitions are criticized for not considering other qualitative characteristics of SMEs beyond their size, the research definition includes quantitative as well as qualitative definition criteria of SMEs.

By analogy with the definition concept of the IfM Bonn, turnover and number of employees of a company were chosen as quantitative definition criteria. The ranges were however selected according to those defined by the European Commission, thus classifying a company as SME in case the number of employees amounts to maximum 250 and the turnover is maximum 50 million euro. Among the possible qualitative criteria for SMEs the family-owned number of shares was selected, as this criterion reflects the unity of management and ownership, already introduced as a main characteristic of SMEs. Enterprises exceeding one or both quantitative criteria were still classified as SME in case more than 50% of the shares were family-owned.

*Research Instrument*

As research instrument an online questionnaire was applied. Initially, general information about the participating companies being necessary for the identification of SMEs and further classifications of those SMEs were interrogated. These information included the related industry (manufacturing, commerce, services, others), number of employees (<50, 50 -250, 251- 500, 500- 750, >750), annual turnover in euro (<10m, 11-50m, 51-250m, 251-500m, >500m), stock exchange listing (listed company, non-listed company as part of listed group, non-listed company) and portion of family-owned shares (0%, 1-25%, 26-50%, 51-75%, 76-100%).

The second part of the questionnaire aimed at the different possibilities to apply and determine the cost of capital in SMEs. First, application areas of the cost of capital (cost accounting, capital budgeting, none of both areas) within the respective SMEs were queried, whereas multiple selection was possible. In accordance with the research objective to analyze the application of the cost of capital in the context of an implicit value orientation, the area of VBM was omitted purposely. For each selected application area, the applied type of cost of capital (cost of equity, cost of debt, total cost of capital by combining cost of debt and cost of equity) was identified. Subsequent to the first vague specification of calculation methods, the questionnaire was split in several branches from one level to the next. Depending on the selected type of cost of capital, the participating SMEs were queried in detail about the applied calculation methods for the cost of equity, cost of debt and total cost of capital as well as about the reasons for not applying certain approaches.

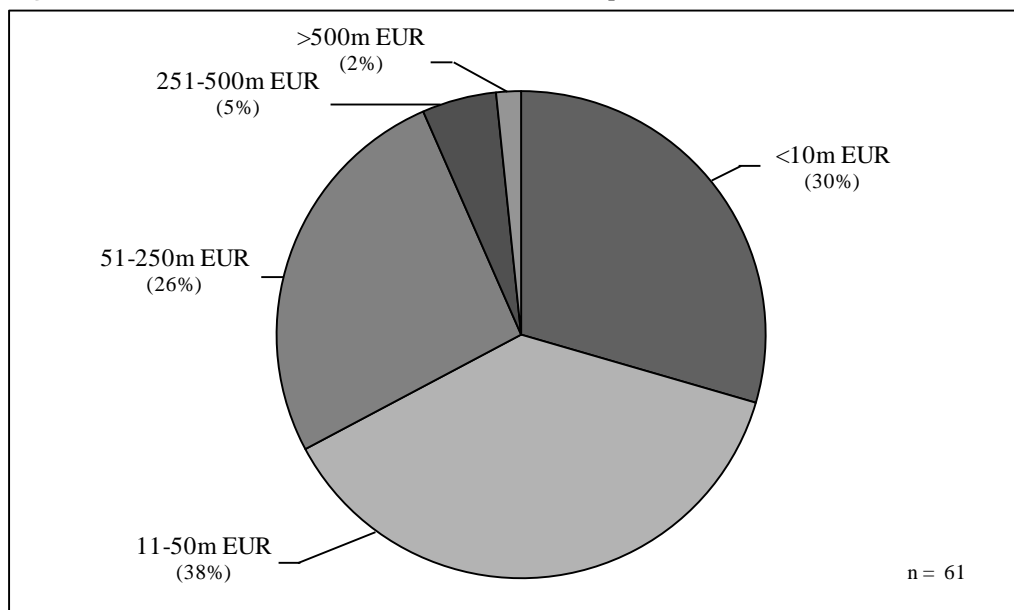
In case SMEs applied cost of capital in both cost accounting and capital budgeting with different approaches, the procedure was repeated for both areas. If SMEs however generally did not apply cost

of capital, they were asked to give reasons for this in a free entry field and queried about plans to introduce cost of capital in the future.

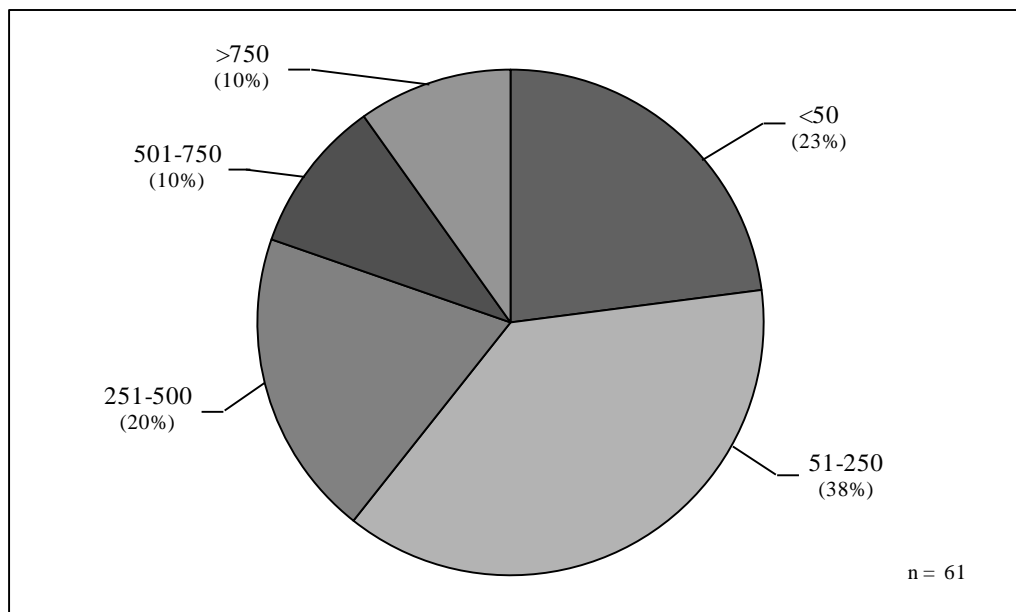
#### *Sample*

In total, 75 analyzable responses were received, whereas 61 companies could be classified as SMEs according to the research definition. While 58 of those SMEs fulfilled the qualitative criterion of family ownership, 3 companies were classified as SMEs solely due to the quantitative definition criteria. Hence, the sample almost exclusively consists of family-owned enterprises. Additionally, none of the SMEs in the sample is a listed company or part of a listed group. When classifying those SMEs according to their related industry, 86% pertain to the manufacturing sector, whereas 7% were each assigned to the commercial and the services sector. The distribution of number of employees and annual turnover of the SMEs in the data sample is apparent from figure 5 and 6.

**Figure 5:** Distribution of annual turnover in the data sample



**Source:** own illustration, based on the data sample of the conducted survey

**Figure 6:** Distribution of number of employees in the data sample

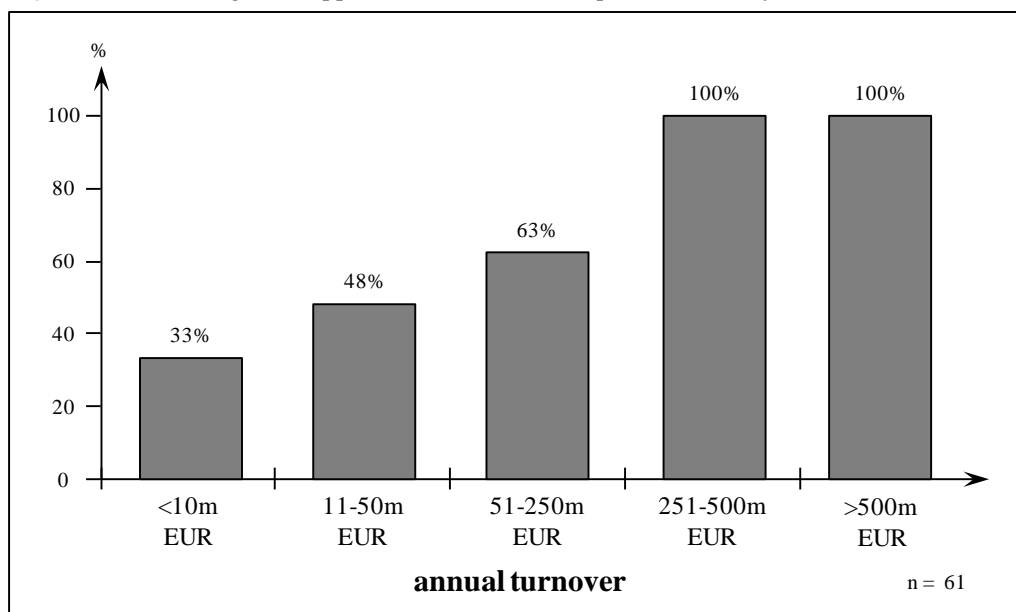
**Source:** own illustration, based on the data sample of the conducted survey

## RESULTS

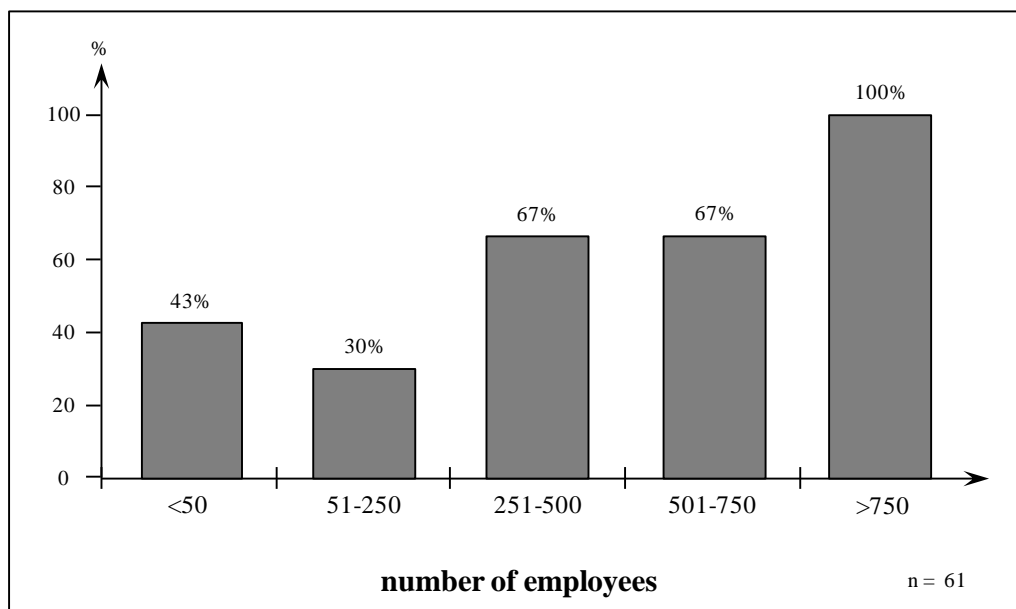
### *General application of the cost of capital in SMEs (H1 to H3)*

The hypothesis according to which the cost of capital plays a minor role in SMEs (H1) is not supported by the empirical results of this study. Since 51% of the sampled SMEs apply cost of capital in cost accounting and/or capital budgeting, the proportion between SMEs using cost of capital in at least one of both areas and those not applying cost of capital needs to be considered largely balanced. The application of the cost of capital across the application areas is distributed as follows: while 49% of the sampled SMEs do not apply capital costs, 16% apply them only in cost accounting, 8% only in capital budgeting and 26% in both areas. In the latter case, for both areas uniform cost of capital is applied by a vast majority (62%). Still, it needs to be considered that the cost of capital is applied only irregularly among SMEs.

The empirical findings also show that the probability for the application of cost of capital increases with the size of a SME (H2). Within the sample, the degree of application of cost of capital increases steadily with growing annual turnover and at least tends to rise with growing number of employees, as shown in figure 7 and 8.

**Figure 7:** Relative degree of application of the cost of capital in SMEs by annual turnover

**Source:** own illustration, based on the data sample of the conducted survey

**Figure 8:** Relative degree of application of the cost of capital in SMEs by number of employees

**Source:** own illustration, based on the data sample of the conducted survey

Furthermore, of those 30 SMEs in the sample which do not apply cost of capital only 17% plan an introduction within the next 3 years. Consequently, a majority of the SMEs not applying capital costs at the moment does not plan to introduce them within the next 3 years, either. Therefore hypothesis 3 is disproved by the empirical findings. Additionally, those 30 SMEs were questioned about reasons for not applying cost of capital by means of a free entry field in the survey, leading to three clusters of answers. While 13 SMEs stated that there is no need for cost of capital without giving further reasons and 5 SMEs mentioned limited resources or management control systems, 7 SMEs had insufficient



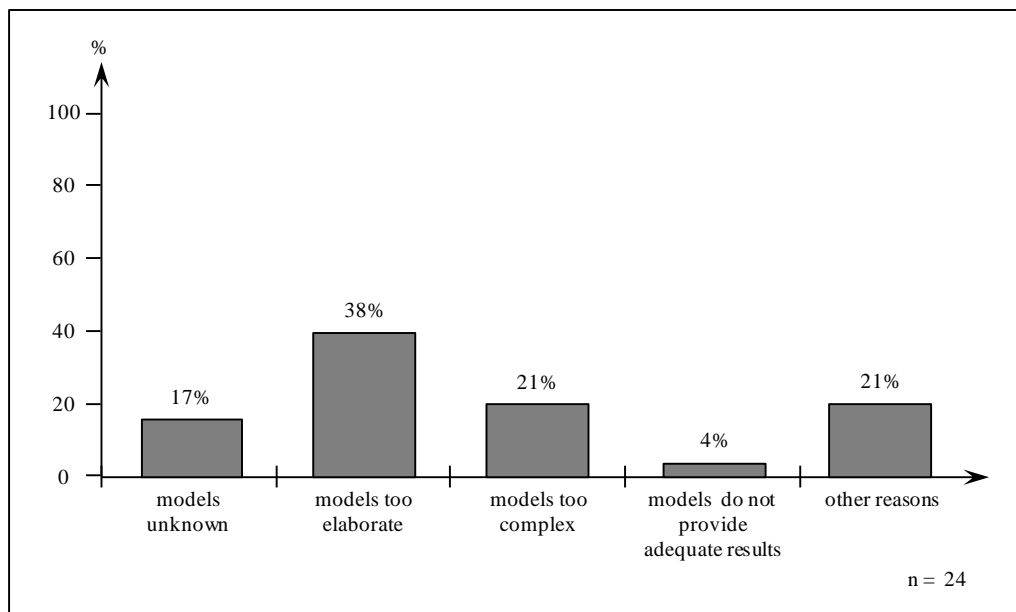
knowledge about the cost of capital. This was either directly mentioned as a reason by the participants or indirectly indicated by illogical reasoning. For instance, some of those SMEs argued that the company is fully equity financed, which leads to the assumption that only the cost of debt are considered as cost of capital in these cases. The remaining SMEs did not answer this question.

*Application of capital market based models in SMEs (H4, H5)*

The application of capital market based models refers to the calculation of the cost of equity in the sampled SMEs. In this context, the survey findings suggest that capital market based models only play a minor role among SMEs. As, due to the structure of the questionnaire, the study queries two different equity cost rates for one SME in case different calculation approaches are applied in cost accounting and capital budgeting, it needs to be started from the number of collected applied calculation methods for the cost of equity instead of the sampled SMEs applying cost of equity.

Of the 21 collected calculation methods for the cost of equity 90% are based on heuristic methods, whereas 90% go back to capital market based models (exact distribution of calculation methods see section “applied calculation methods”). In none of the cases the capital market based model is applied in its basic form. Instead, those 2 SMEs that apply a capital market based model use modified procedures for calculating  $\beta$ . Consequently, combining this result with the already ascertained absence of listed companies among the sampled SMEs, the hypothesis according to which capital market based models in their basic form are hardly applied due to the predominant lack of listing (H4) can be confirmed by the empirical findings.

In case capital market based models were not applied (19), the reasons for this were queried in a second step. Here, multiple selection as well as free input of additional reasons was possible. As illustrated in figure 9, the survey reveals that 59% of the given explanations refer to the high effort and complexity of capital market based models, thus confirming that those models are generally hardly applied among SMEs for being mainly considered as too complex and elaborate (H5).

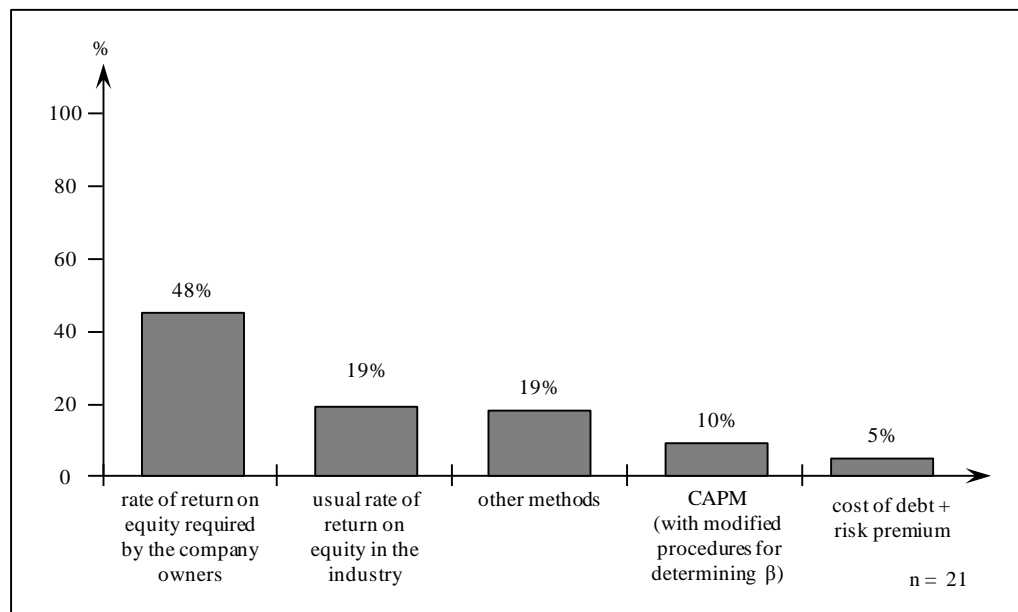
**Figure 9:** Reasons for not applying capital market based models

**Source:** own illustration, based on the data sample of the conducted survey

#### *Applied calculation methods (H6, H7)*

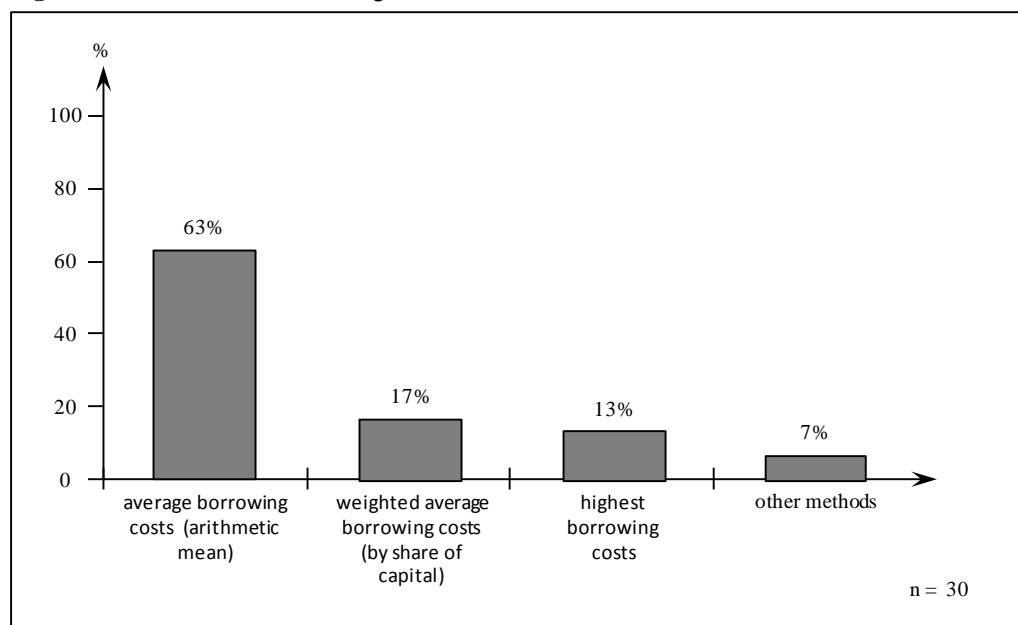
The analysis of applied calculation methods in the sampled SMEs again needs to be based on the number of collected calculation methods in the survey, which exceeds the number of sampled SMEs applying cost of capital by reason of the structure of the survey. Since the cost of capital was queried separately for cost accounting and capital budgeting and 6 of the 31 sampled SMEs that apply cost of capital use different procedures in both areas, 37 applied approaches for calculating the cost of capital were collected. While 57% of the 37 applied approaches in the sample use the total cost of capital, in 19% of all cases only the cost of equity and in 24% only the cost of debt is charged as cost of capital. Furthermore, if the total cost of capital is applied, in 67% of those cases the weighted average cost of capital is calculated, whereas in 33% of those cases the calculation is based on the cost of debt increased by a risk premium.

The survey also reveals, which calculation methods for the cost of debt and the cost of equity are applied among the sampled SMEs. Of the 21 determined cost of equity in the sample, either directly applied as the cost of capital (7) or as part of the weighted average cost of capital (14), 48% are based on the rate of return on equity required by the company owners. Other methods are considerably less common, as illustrated in figure 10. Hence, the hypothesis concerning the most common method for determining the cost of equity (H6) is confirmed by the survey.

**Figure 10:** Methods for determining the cost of equity

**Source:** own illustration, based on the data sample of the conducted survey

Concerning the cost of debt, the empirical results also confirm the hypothesis according to which the average borrowing costs of the company are the most common method applied among the sampled SMEs (H7). As shown in figure 11, even 63% of the determined cost of debt is based on this method, whereas the weighted average borrowing costs and the highest borrowing costs are applied in 17% respectively 13% of all cases. Again this analysis includes each of the collected methods applied in the sampled SMEs, either included in the calculation procedure for the total cost of capital or calculated separately and applied independently as the cost of capital.

**Figure 11:** Methods for determining the cost of debt

**Source:** own illustration, based on the data sample of the conducted survey

Finally, the survey also analyzed the frequency with which the cost of capital is updated within SMEs. The empirical findings suggest that regardless of the type of cost of capital, an update is done mainly once in a year (64%). 15% of the applied cost of capital are each updated every 2 years respectively in case of considerable changes.

## CONCLUSION AND DIRECTIONS FOR FURTHER RESEARCH

In this paper, theoretical foundations as well as previous empirical findings on the cost of capital in SMEs were described initially. Thus, the cost of capital plays an important role in internal management control systems. On the one hand, the cost of capital is explicitly considered in VBM systems, on the other hand also an implicit integration within cost accounting and capital budgeting as central management control instruments is possible. Another application area is the valuation of companies.

When determining the cost of capital, it needs to be distinguished between the cost of equity and the cost of debt. By weighting of both components according to the capital structure, the returns expected by providers of equity and debt capital are combined. While the transferability of the theoretical approaches for determining the cost of debt to SMEs is considered unproblematic, the correct calculation of the cost of equity is the core issue for the determination of the cost of capital in SMEs. Yet, the lack of transferability of the CAPM in its basic form as established theoretical standard model for the cost of equity can be overcome by applying modified approaches for the calculation of the company specific  $\beta$ -factor. Therefore, the CAPM in its modified forms is favoured for the application in SMEs from a theoretical perspective.

The empirical findings on the application of the cost of capital in SMEs by Krol 2009, Piontkowski 2009 and Gonschorek 2009 indicated that the cost of capital only play a minor role among SMEs. However, since those studies are targeted on VBM in general and therefore only touch the topic of the cost of capital, the applied calculations methods among SMEs as well as the significance of the CAPM in this context are not analyzed in detail.

Taking these perceptions into account, the present empirical study in this paper aimed at the fundamental significance of the cost of capital in SMEs in isolation from the background of VBM. Therefore the possible application areas cost accounting and capital budgeting were analyzed in detail. In a second step, the employed calculation methods for the cost of capital in SMEs were investigated with a special focus on the cost of equity. Based on the identified characteristics of SMEs, particularly their limitations in resources, it needed to be analyzed how frequently the CAPM is applied and to which extent simplified heuristic approaches are used instead.

The fundamental findings of the present study in this paper can be summarized as follows:

- For half of the sampled SMEs the cost of capital currently as well as in the short and medium term does not play any role. The vast majority of those SMEs consider that there is no need for them to apply cost of capital.
- With an increase in company size the degree of application of cost of capital tends to rise.
- Those SMEs for which cost of capital are of significance apply them most commonly in both cost accounting and capital budgeting. In these cases, in both areas uniform cost of capital is applied in majority.
- For determining the cost of equity the CAPM is of minor significance among SMEs, as it is most commonly considered too complex and elaborate. Instead, simplified heuristic methods are used in majority. The most commonly applied method is the expected rate of return on equity by the company owners.

In conclusion, it needs to be stated that the cost of capital only plays a minor role among SMEs. Moreover, in case of application in internal management control systems, the cost of capital is mostly not determined according to those approaches preferred from a theoretical perspective. Hence, also an implicit value orientation of SMEs being the starting point of this paper is not supported by the empirical results of the present study. Since the vast majority of SMEs do not apply systematically determined, risk-adequate cost of capital, SMEs, at least under this aspect, mostly do not act value-oriented.

Areas for further research especially arise from the contradiction between the low significance of the cost of capital in SMEs identified by the present study and the initially introduced increasing importance of value orientation and thus of the cost of capital for SMEs due to several influencing factors (Tappe 2009, pp. 46-50). For instance, more restrictive lending policies by financial institutions as a result of the new Basel III rules (Waschbuch et al. 2012, p. 191) increasingly force SMEs to find alternative forms of financing, e.g. the issuance of bonds (Tappe 2009, p. 48; Mausbach, Simmert 2012, p. 14). Additionally, large parts of SMEs are presently faced with difficulties in finding a successor for the current entrepreneur (IfM Bonn 2010, p. 49). In both cases, it is beneficial for SMEs to increase their attractiveness for investor by consequent value orientation (Krol 2009, p. 52ff). In this context, it would be of significance to analyze how SMEs judge the application of risk-adequate cost of capital in the light of those developments.

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## FAMILY AND NOT FAMILY FIRMS AND THE IMPACT ON PERFORMANCE: A COMPARISON BETWEEN ITALY, FRANCE, SPAIN

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### ABSTRACT

The main goal of this study is to analyse the impact of corporate governance, observing the variable family, on performance, comparing the Italian, French and Spanish companies, large size, belonging to the Manufacture Sector of wine from grape.

This variable has a significant impact on business performance. In fact, many studies underline the relevance of the family through the composition-performance relationship.

The analysis is conducted in both family and not family firms to notice the analogies, the differences, and the impact on performance and to understand where the most value is created. Studying this topic the research would also to understand the specific features of this kind of firms, their culture and some possible changes in corporate governance.

**Keywords:** *family firms, not family firms, Italy, Spain, France, economic performance, financial performance.*

### INTRODUCTION

The influence of ownership structures on firm performance has been researched extensively in the theoretical and empirical literature. The relevant literature suggests that ownership structure is one of the main corporate governance mechanisms influencing the scope of a firm's agency cost (Arosa, Txomin Iturralde, Amaia Maseda, 2010).

Identifying differences between Family Firms (FFs) and Not Family Firms (NFFs) and understanding the medium and long-term consequences of the Family Firms strategic behavior constitute two of the basic fields of family business research. Recent research has taken important steps toward these ends. However, in some cases, the differences between FFs and NFFs have not been sufficiently explained. (Gallo, Tapies, Cappuyns, 2004).

This study analyses the composition-performance relationship in the family business, because in the organizational management researches, the family is a relevant variable, but sometimes it is forgotten. Also Dyer (2003, p. 401) refers to the family as "the missing variable in organizational research" and he warns that "failing to use the family as a variable in organizational research can lead to incomplete or misleading findings" (Speckbaker G., Wentges P. 2007).

This study compares family and not family firms, belonging to three different countries, Italy, France and Spain, considering a particular sector, where these countries excel, the Manufacture of wine from grape, to better understand where the most value is created.

Gallo, Tapies, Cappuyens (2004), in their study, underline, in the field of financial structure and policies, as well as the economic results of FFs, the following research is worth noting. First, Daily and Dollinger (1992), working with a sample of 186 manufacturing businesses in Indiana (USA) with fewer than 500 employees and sales levels of less than \$30 million per year, found that in comparing FFs with NFFs, between 1986 and 1988, FFs surpassed NFFs in rate of sales, profit margin increases and, in an elaborated measure using four comparison points, in each business with its main competitor. Second, Gallo and Vilaseca (1996, 1998), using a sample of 104 Spanish FFs having an average sales figure of €33.7 million (at 2001 equivalency), found that the smaller FFs used less complex financial practices and had very low debt ratios, but the research failed to identify statistically significant differences in “resource profitability.”

This study try to understand if there are significant difference between FFs and NFFs, but also if there are significant differences or analogies in these three different countries.

This paper is organised as follows. Firstly, it analyses the theoretical background about the Family Firms and Not Family Firms. Secondly, the research method is outlined, as well as a brief presentation of the analysed sample. Finally, the discussion of the results and the main conclusions are described with the limitations of the study.

## **THEORETICAL BACKGROUND**

### *Defining Family firms*

In the last years family firms have received increasing attention and several recent studies have reported and underlined that in continental Europe, Asia, and Latin America, the vast majority of publicly traded firms are family controlled (La Porta et al., 1999; Claessens et al., 2000; European Corporate Governance Network, 2001; Faccio and Lang, 2002). They, also, suggest that family firms play an important role in economic activity worldwide. In fact two-thirds of private businesses in many countries are considered to be family firms (Neubauer and Lank 1998, IFERA 2003), and they contribute to wealth creation and job generation with reference to narrow and broad family firm definitions (Astrachan and Shanker 2003).

However, how is it possible to define the meaning of family firm? It is not so easy to give a definition of family firm, in fact in the literature persist ambiguities.

Kraiczy (2013) affirms that: “although many researchers have tried to develop a satisfactory definition, there is still no consensus about a widely accepted definition. Although some studies in the finance

literature identify any public company where a family or a founder owns more than 5 percent as a family firm, other studies define firms only as family firms if the first succession into the second generation has taken place. However, in most studies a family firm has been characterized as a firm that is controlled and usually managed by multiple family members, sometimes from multiple generations. The use of different definitions is a major problem in family firm research. Although studies analyze related topics, the use of different family firm definitions makes the comparability of these results difficult. One of the biggest challenges of developing a general definition is the heterogeneity of family firms”.

The main definitions are the following.

Chua, Sharma, and Chrisman (1996) define family business as a business governed and/or managed on a sustainable, potentially cross-generational, basis to shape and perhaps pursue the formal or implicit vision of the business held by members of the same family or a small number of families.

La Porta (1999) defines family business like a firm that is partly owned by one or more family members who control together at least 20% of the total votes outstanding.

Astrachan and Kolenko (1994) suggest that a family had to own over 50 percent of the business in a private company or more than 10 percent of a public company in order to qualify as a family business.

Le Breton-Miller, Miller, and Steier (2004) do not explicitly define a family firm but they assume that management succession means firm leadership will pass from one family member to another or, in the absence of a competent family contender in the short-term, a bridge manager between family tenures.

Zahra, Hayton, and Salvato (2004) define family firms according to the presence of both a family member with some identifiable share of the ownership of the firm and multiple generations of family members in leadership positions within that firm.

Morck and Yeung (2004) use the following criteria of family control to distinguish family firms: (1) the largest group of shareholders in a firm is a specific family, and (2) the stake of that family is greater than either a 10% or 20% control of the voting shares.

This research to identify family businesses uses the following parameter: family had to own over 50 percent of the business in a private company or more than 10 percent of a public company in order to qualify as a family business (Astrachan, Kolenko, 1994).

#### *Family versus not family firms*

After defining family firm it is important to examine the “family effect” on firm performance.

Jensen and Meckling (1976) suggested that ownership concentration has a positive effect on performance because it alleviates the conflict of interest between owners and managers. The opposite view of the ownership structure directs attention towards the effects of the agency problem resulting from the combination of concentrated ownership and owner control (Fama & Jensen, 1983).

In the literature, there are studies which underline that family firm are better than non-family firm and they report that controlled family ownership positively influences firm performance (Anderson and Reeb, 2003, Burkart et al., 2003, and Wang, 2006)

Anderson and Reeb, in a research conducts in 2003, found that family firms outperformed non-family firms in the S&P 500, noting that “family firms are significantly better performers than non-family firms”.

Another study, conducted by Arosa, Txomin Iturralde, Amaia Maseda (2010), underlines that the distinctive features of family firms have a positive effect on their corporate behavior. The family's interest in the long-term survival of the business as well as its concern for maintaining the reputation of the firm and the family, lead the family to avoid acting opportunistically with regard to the earnings obtained (Burkart, Panunzi, & Shleifer, 2003; Wang, 2006). Families have concerns and interests of their own, such as stability and capital preservation, which may not align with the interests of other firm investors.

However, in general, the empirical evidence is not conclusive.

Arosa, Txomin Iturralde, Amaia Maseda (2010), also underline that some empirical findings indicate that firms with concentrated ownership structure, such as founding families, show lower profitability than those firms with a dispersed ownership structure (DeAngelo & DeAngelo, 2000; Fama & Jensen, 1983; Gomez-Mejia et al., 2001).

Furthermore, there are also many studies which highlight that family firms under-perform if compared with non-family firms.

Daily and Dollinger (1992) write that family-run firms do appear to achieve performance advantages whether performance is measured in terms of financially oriented growth rates or perceived measures of performance.

Faccio, Lang, and Young (2001) have also noted that family firms are relatively poor performers due to conflicts that arise as a family attempts to manage an enterprise.

Despite the different positions in the literature, this study tries to understand if the most value is created in family or in not family firms.

## **METHODOLOGY**

### *The sample*

This study is based on a sample of 421 companies operating in the Manufacture Sector of wine from grape, where the tree considered countries, Italy, France, Spain, are historical producers. The sample includes only large firms and data were extracted by Amadeus database.

The sample includes 140 companies from Italy, 147 from France and 134 From Spain.

	n. company	% n. of companies
Italy	140	33%
France	147	35%
Spain	134	32%
<b>Total</b>	<b>421</b>	<b>100%</b>

Table 1. The sample

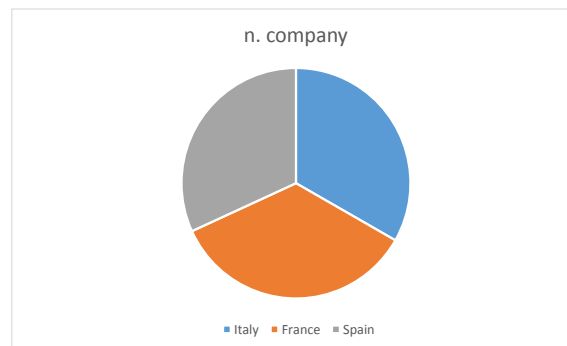


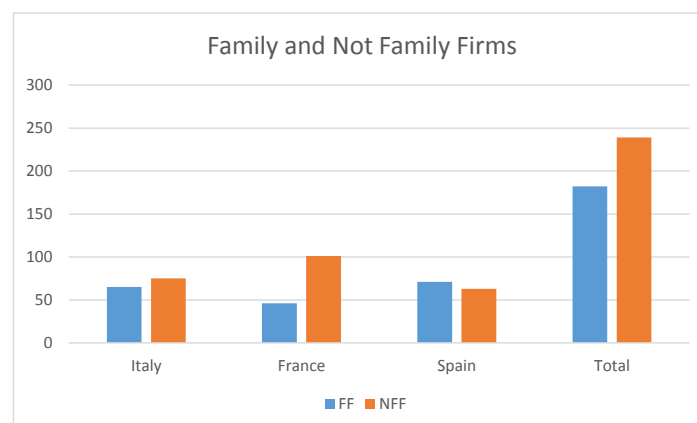
Figure 1. The sample

As state in the previous paragraph, in this study a firm is classified as a family firm, if family had to own over 50 percent of the business in a private company or more than 10 percent of a public company (Astrachan, Kolenko, 1994).

The sample includes 182 family Firms (43%) and 239 Not Family Firms (57%). The details for each countries are included in the following table.

	FF	%FF	NFF	% NFF	Total	% Total
Italy	65	46%	75	54%	140	100%
France	46	31%	101	69%	147	100%
Spain	71	53%	63	47%	134	100%
<b>Total</b>	<b>182</b>	<b>43%</b>	<b>239</b>	<b>57%</b>	<b>421</b>	<b>100%</b>

Table 2. The sample: FFs and NFFs



*Figure 2. The sample: FFs and NFFs**Research question and method*

The main goal of this study is to analyze the impact of the variable “family” on performance, to reach the declared goal. The main research question is:

RQ1: Does the family have a positive impact on economic financial performance?

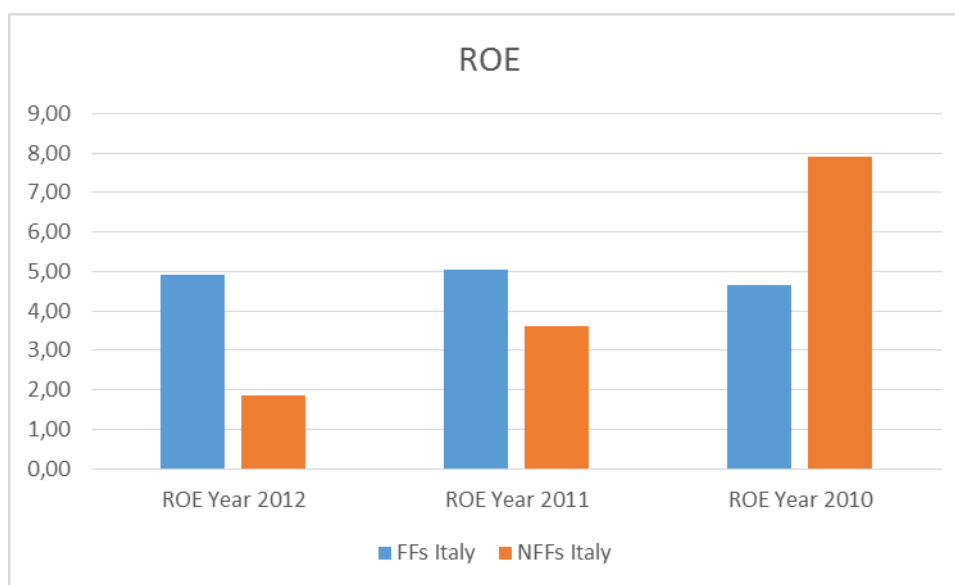
To answer to this RQ1 the most relevant financial and economic ratio between family and not family firms were compared, for each country.

## FINDINGS AND RESULTS

*Italy*

About Italian family firms the data shown that FFs outperform in ROE, and not family firms outperform in ROA, how shown in the following table.

	FFs Italy	NFFs Italy	outperformance classification - Italy
ROE Year 2012	4,92	1,86	FFs
ROE Year 2011	5,05	3,62	FFs
ROE Year 2010	4,64	7,92	NFFs
ROE Mean 2010-2012	4,87	4,47	FFs
ROA Year 2012	1,71	1,72	-
ROA Year 2011	0,93	1,48	NFFs
ROA Year 2010	0,78	2,07	NFFs
ROA Mean 2010-2012	1,14	1,76	NFFs

*Table 3. Economic performance in Italian FFs and NFFs**Figure 3. ROE in Italian FFs and NFFs*

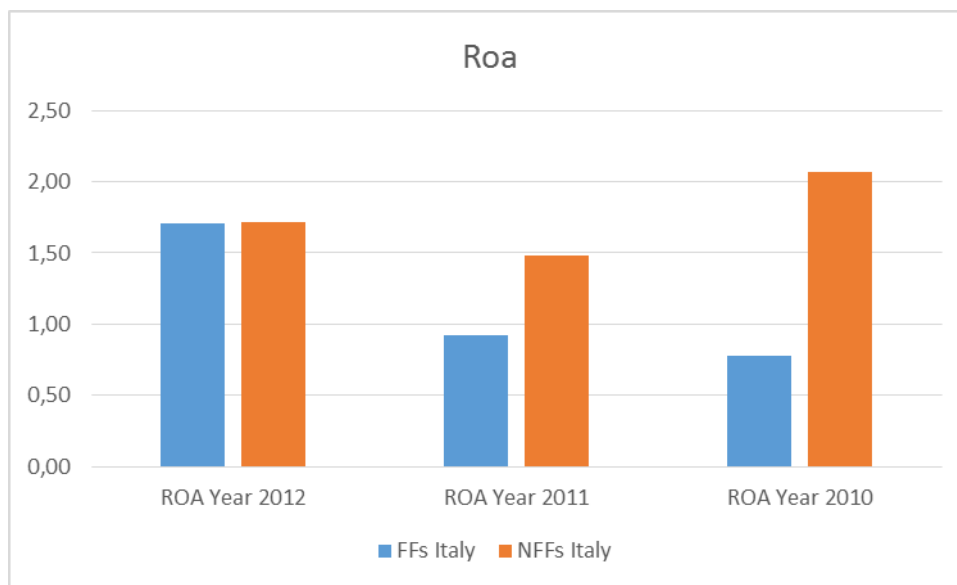


Figure 4. ROA in Italian FFs and NFFs

The ROA shows that the assets in NFFs are more profitable in generating revenue; in particular, this index shows how many euro of earnings they derive from each euro of assets they control.

On the contrary, FFs outperform in ROE, which measures the rate of return on the ownership interest of the common stock owners. Italian FFs seem more efficient at generating profits from every unit of shareholders' equity.

About the liquidity ratio, the index that measure the ability of a company to meet its short term debt obligations and the ability of a company to pay off its short-term liabilities when they fall due, it emerges that NFFs outperform than FFs.

	FFs Italy	NFFs Italy	outperformance classification - Italy
Liquidity ratio Year 2012	0,93	0,84	FFs
Liquidity ratio Year 2011	0,78	0,85	NFFs
Liquidity ratio Year 2010	0,76	0,88	NFFs
Liquidity ratio Mean 2010-2012	0,82	0,86	NFFs

Table 4. Financial performance in Italian FFs and NFFs

#### France

About French family firms the data shown that FFs outperform in ROE, and not family firms outperform in ROA, also if less evident observing the mean, how shown in the following table.

	FFs France	NFFs France	outperformance classification - France
ROE Year 2012	4,26	1,96	FFs
ROE Year 2011	3,91	2,57	FFs
ROE Year 2010	3,47	2,47	FFs
ROE Mean 2010-2012	3,88	2,33	FFs
ROA Year 2012	2,02	0,92	FFs
ROA Year 2011	0,64	1,29	NFFs
ROA Year 2010	0,68	1,13	NFFs
ROA Mean 2010-2012	1,11	1,11	-

Table 5. Economic performance in French FFs and NFFs

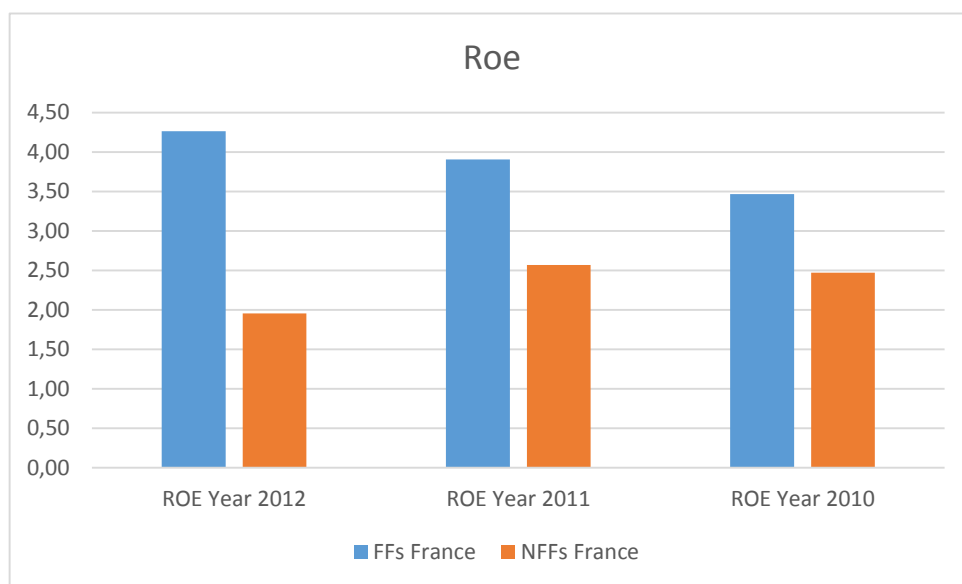


Figure 5. ROE in French FFs and NFFs



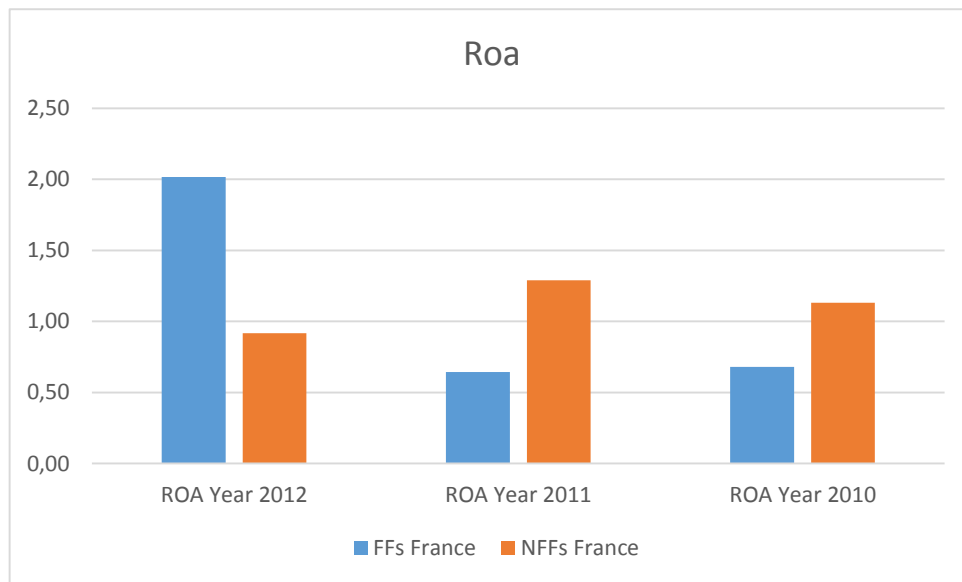


Figure 6. ROA in French FFs and NFFs

The ROA shows that the assets in NFFs are more profitable in generating revenue, in particular this index shows how many euro of earnings they derive from each euro of assets they control.

On the contrary FFs outperform in ROE which measures the rate of return on the ownership interest of the common stock owners. Also French FFs, compared with Italian FFs, seem more efficient at generating profits from every unit of shareholders' equity.

About the liquidity ratio, also French NFFs are more able, than French FFs, to meet its short term debt obligations, as Italian NFFs.

	FFs France	NFFs France	outperformance classification - France
Liquidity ratio Year 2012	0,64	1,28	NFFs
Liquidity ratio Year 2011	0,68	1,30	NFFs
Liquidity ratio Year 2010	1,10	1,25	NFFs
Liquidity ratio Mean 2010-2012	0,81	1,28	NFFs

Table 6. Financial performance in French FFs and NFFs

### Spain

About Spanish family firms the data shown that, in this case, NFFs outperform in ROE, and FFs outperform in ROA, how shown in the following table.

	FFs Spain	NFFs Spain	outperformance classification - Spain
ROE Year 2012	2,16	6,11	NFFs
ROE Year 2011	-0,36	-1,96	FFs
ROE Year 2010	-4,72	-0,44	NFFs
ROE Mean 2010-2012	-0,97	1,24	NFFs
ROA Year 2012	1,90	0,15	FFs
ROA Year 2011	1,18	1,09	FFs
ROA Year 2010	1,37	1,95	NFFs
ROA Mean 2010-2012	1,48	1,06	FFs

Table 7. Economic performance in Spanish FFs and NFFs

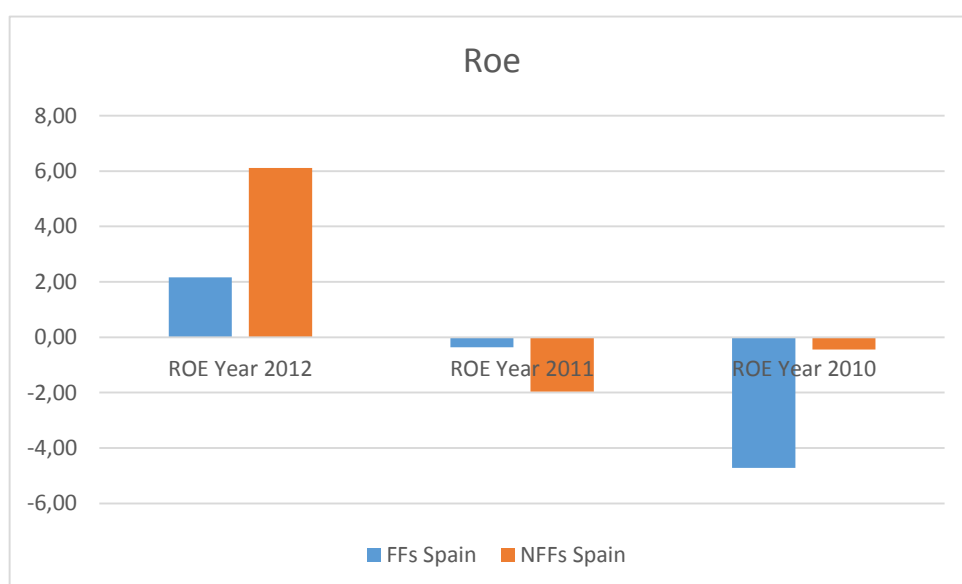


Figure 7. ROE in Spanish FFs and NFFs

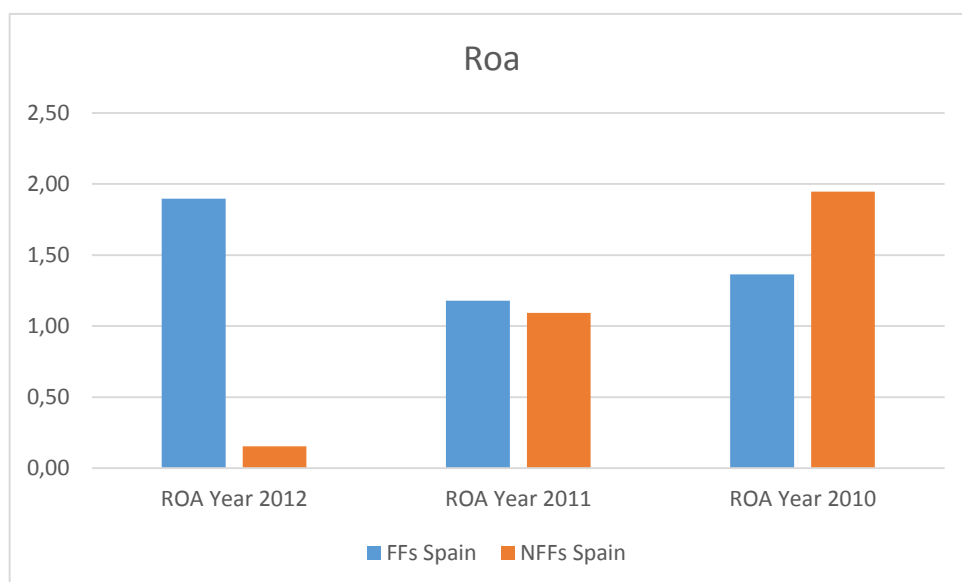


Figure 8. ROA in Spanish FFs and NFFs

The ROA shows that the assets in FFs are more profitable in generating revenue; in particular, this index shows how many euro of earnings they derive from each euro of assets they control.

Spanish NFFs outperform in ROE, which measures the rate of return on the ownership interest of the common stock owners. Spanish NFFs seem more efficient at generating profits from every unit of shareholders' equity.

About the liquidity ratio, Spanish FFs seem more able, than NFFs, to meet its short term debt obligations, if we consider the mean, also if NFFs outperform for two years in this index.

	FFs Spain	NFFs Spain	outperformance classification - Spain
Liquidity ratio Year 2012	1,18	1,40	NFFs
Liquidity ratio Year 2011	1,37	1,67	NFFs
Liquidity ratio Year 2010	2,20	1,31	FFs
Liquidity ratio Mean 2010-2012	1,58	1,46	FFs

*Table 6. Financial performance in Spanish FFs and NFFs*

## LIMITS AND FUTURE RESEARCH

This research presents some limitation that can be summarized as follows:

- the sample includes only large firms;
- the method used can be improved adopting some econometrical model.

Future researches could improve these limitations and investigate about the reasons of the performance results in FFs and NFFs.

## CONCLUSION AND CONTRIBUTION

The purpose of this study was to scrutinize the relationship between ownership structure and the performance in Italian, French, Spanish NFFs and FFs, that operate in Manufacture of wine from grape. First, the analysis reveals that Not Family firms outperform than Family Firms in ROA, and this aspect is more evident in Italy and France, consequently these NFFs are more profitable in generating value.

About ROE, in Italy and France, it is clear that FFs outperform than NFFs, appearing more efficient at generating profits from every unit of shareholders' equity.

It emerges also that the behavior of Spanish FFs and NFFs is in contraposition with Italy and France. Indeed FFs outperform in ROA, compared with NFFs, but not in ROE, where the best results were achieved by NFFs.

This behavior, in contraposition, it is confirmed by the liquidity ratio; indeed Italian and French NFFs outperform in this ratio, instead in Spain the FFs outperform in this ratio.

What clearly emerges from this research is that Italian and French Firms act in the similar way, in contraposition with Spanish firms, but about the variable “family” it does not clearly emerge if this variable influences positively or not the firm performance. What it is possible to affirm is that the “family” impact on performance and gives different connotations to the firms.

This research confirms what is possible to find in the literature: the family is a relevant variable in performance evaluation, but it is not easy to affirm, in a unique way, when it impacts positively or not.

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## THE USE OF A BUDGETING PROCESS. AN EMPIRICAL RESEARCH ON ITALIAN LISTED FAMILY FIRMS

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### ABSTRACT

The aim of this study is to investigate the use of budget by Italian listed firms (FTSE MIB, STAR and SMALL CAP indexes), verifying the presence of a systematic use of a budgeting process. In particular, we analyzed the Family Firms (FFs) in order to understand better the features of this kind of firms. The questionnaire tool was used to collect the data, analyzing both qualitative and quantitative ones.

This study shows that the budget is yet a fundamental tool in the Italian listed firms, even if budget needs to be joined by other tools to overcome its limitations and besides the problem about the budget gaming.

**Keywords:** *managerial systems, budget, listed Family Firms, beyond budgeting, better budgeting, Italy*

### INTRODUCTION

The aim of this study is to investigate the use of budget by Italian family firms listed on Borsa Italiana Stock Exchange, verifying the presence of a systematic use of a budgeting process. In particular, we analyzed the Family Firms (FFs) in order to understand better the features of this kind of firms.

In particular, our main goal is to test both the intensity in the use of the budgeting tool by Italian listed FFs and the beyond or the better budgeting theory on this sample.

Until a recent past, the budget has proved an effective tool for planning and control, designed to measure the performance and giving the company a competitive advantage. This tool is useful when the economic environment is stable (De Luca, 2010). On the contrary, in the last year managers increasingly see the budgeting process as a process too long, too complex and not flexible. For Jack Welch, Ceo of General Electric, someone defines this tool as “the bane of corporate America” (Loeb, 1995) and for Bob Lutz, Former vice-Chairman of Chrysler (Hope, and Fraser, 1999) this is “a tool of repression” or a tool that not motivate you to set yourself ambitious targets. Indeed, this tool has some critical as (Anthony, 2005; Brusa, 2012; De Luca, 2010; Dematté, 2002, Hirst, 1987; Hope, 2007; Libby and Lindsay, 2003; Merchant, 1985):

- a long time to draft (too much time compared uncertain benefits);
- stiffness and slowness of response to the economic environment;

- emphasis on quantitative performance - monetary and non-qualitative performance;
- manipulation of the data;
- managers are often not involved in setting goals, but they have to reach them;
- validity at all costs (the budget is “the Law”);
- too much focused on the short term;
- poor orientation to customer needs and market trend;
- gap between strategy and budget;
- obstacle to innovation;
- authorization to spend money.

A study conducted by Hacket Benchmark (Daum, 2002) underlines that enterprises spend on average 25,000 person days on planning and performance measurement per US\$ 1 billion turnover; another study by KPMG (Daum, 2002) shows that the budgeting process takes up 20-30 percent of managers' and controllers' time.

To overcome these limitations, in the recent years new technical tools of business management have been developed; in particular, it is interesting to analyze the thinking of the Beyond Budgeting Round Table (BBRT), which has analyzed 14 successful companies, operating totally or partially in the absence of budget. The result of the analysis led to the formulation of 12 rules (guidelines) for the dynamic management company.

The new approach focuses on the key role that cover human resources and it is based on the assumption that, in the current economic and globalized market, it is more important to manage the "complexity" than the efficiency (De Luca, 2010).

Recently Hope and Fraser (2003a, 2003b) propose a new management model based on employee empowerment and alternative methods of performance management. Budgets are yet a key element in the firm management control systems, also if its usefulness has generated much recent discussion and debate.

In this context, our study contributes to the literature as it explains if the budget is yet a useful tool adopted by Italian listed companies with particular regard to the family control variable.

The second section of this paper analyzes the theoretical background concerning respectively the Beyond and Better Budgeting Theory and FFs phenomenon. Section three outlines the research method and describes the sample. The fourth section presents the findings and discusses the results. Finally, section five defines the conclusions and implications of the study, along with its limitations.

## LITERATURE REVIEW

### *Beyond or better Budgeting*

Budgeting is a main instrument for the control of companies' management (Malmi et al., 2001), representing a central topic in management accounting researches (Luft and Shields, 2003). Indeed most companies consider budgets as a key tool in their management control systems (Bassani et al. 2010; Brusa, 2012).

Several scholars focused on the usefulness of budgets, generating recent discussion and debate. In the past, budget was mainly considered as a suitable tool for coordination, communication and performance evaluation (Brusa and Dezzani 1983, Brusa, 2010, 2012); more recently, some scholars consider it the cause of gaming and earnings manipulation by managers, time consuming and costly to develop, and a barrier to change. Among them, Charles Horngren, who promoted traditional budgeting for more than 40 years, recently admits that "numerous managers are extremely unhappy about budgeting" (Sivabalan et al., 2009, Libby and Lindsay, 2010, Ostergren and Stensaker, 2011).

Also considering a slow change in this topic (Granlund, 2001), traditional budgeting still appears to retain its strong position. Indeed, it emerged that some tools are developing, such as rolling forecasts and balanced scorecard (Ekholm and Wallin, 2000; Libby and Lindsay, 2010).

In the last years, a new tendency named "Beyond Budgeting" (BB) took place: "managing and controlling without budgets", opens new possibilities for strategic enterprise management with the transition to flexible resource allocation (Wallander 1999, Daum, 2002).

This approach comes from evidences concerning several large multinational companies, which – in times of crisis - have adopted alternative strategies to the classical model of planning and control. In particular, in these companies, traditional management style (based on the annual planning top-down) is replaced (De Luca, 2010).

The main founders of BB are Hope and Fraser (2003a, 2003b, 2007): they stated that the management accounting model used by companies during the "second wave" (the industrial age) must be changed if companies are to compete successfully in the "third wave" (the information age). In these terms, budgeting systems represent a primary barrier to change. This issue is supported by a sample of Scandinavian companies, which have completely abandoned budgeting, obtaining success. For this purpose, they provided a sort of guide to help companies to break through this barrier (Ray and Proctor, 2006).

Some scholars suggested a sort of transition to flexible operational planning and measure management; in this way, the planning and management process should be simplified and become more flexible, and the effort should be reduced at the same time.

In particular, Daum underlines the 12 Beyond Budgeting principles. Due to their different purposes, they are articulated into the following groups:

- performance management and controlling processes principles



- new leadership principles

that should support a management concept “Beyond Budgeting” described in the table below.

<b>Performance Management Principles</b>	<b>Leadership Principles</b>
The target setting process is based on the agreement of external benchmarks	The creation of a performance management climate that measures success against the competitors and not against an internally focused budget
The motivation and reward process is based on the success of the team compared to the competitors	The motivation through challenges and transferring responsibility within clearly defined enterprise values
The strategy and the action planning is delegated to operational managers and takes place continuously	The delegation of responsibility to operational managers, who can make decisions themselves
The resource utilization process is based on direct local access to resources (within agreed parameters)	The empowerment of operational managers by giving them the means to act independently (access to resources)
The coordination process allocates the use of resources on the basis of internal markets	The organization based on customer-oriented teams, who are responsible for satisfied and profitable customers
The measurement and controlling process provides quick and open performance information for multilevel control	The creation of a single “truth” in the organization with open and transparent information systems

Therefore, the two fundamental elements of the BB model are new more adaptive management processes and new leadership principles based on the empowerment of managers and employees (Daum, 2002).

More recently, some scholars contrasted the BB approach. Among them, Libby and Lindsay (2010) explored about the use of the budget, discovering that the firms do not abandon this tool, despite some defections and limitations. They concluded that “It’s entirely possible, as the Johnson & Johnson and Emerson Electric examples indicate, that both the beyond budgeting and budgeting models can be highly effective if designed appropriately, regardless of the specific conditions faced. Alternatively, one approach may have a greater propensity of success than the other under certain conditions. Nevertheless, while many of us might be skeptical of abandoning budgeting, the beyond budgeting movement has sparked deeper thinking by us all about the usefulness of budgeting for purposes of management control”.

#### *Defining Family Firms*

It is not that easy to find a definition for the expression “family firm” and ambiguities persist in the literature.

Some studies defined family firms using mixed criteria always related to ownership and control (Smyrnios et al., 1998). According to these authors, an enterprise is classified as a family business if (Chua et al., 1999) i) at least 50 per cent of the shares are owned by the family, and the family is

responsible for the management of the company, ii) or at least 50 per cent of the shares are owned by the family, the enterprise is not family-run, but the CEO perceives it as a family business, iii) or family ownership is less than 50 per cent, the company is family-run, the CEO perceives it as a family business, and a venture capital or investment company owns at least 50 per cent of the shares (Culasso et al., 2012).

In our study we choose a mixed criterion (Culasso et al., 2012), which includes:

- controlled participation in the capital by the family/ies;
- the presence on the Board of at least one family member.

Indeed, this mixed criterion is the most adequate and precise to identify a family firm and to distinguish FFs from NNFs, as it considers simultaneously many variables instead of only one (Smyrniotis et al., 1998). In addition, a mixed criterion mirrors the Italian context in which a FF has one or more families control participation in the capital and also some family members are in the Board of Directors, even without executive roles.

The family business phenomenon in Italy has been strongly analyzed in terms of relationship between FFs and governance. In particular, there are studies that focused on FFs by taking into account organisational structures and decision making process (Gubitta and Giannecchini, 2002; Songini, 2007), corporate governance (Corbetta et al., 2002a; Montemerlo, 2000), second and third generation turnover (Corbetta et al., 2002b; Montemerlo, 2010; Zocchi, 2004a, 2004b), international development (Stampacchia et al., 2008) and performance (Chu Wenyi, 2011; Culasso et al., 2012; Faccio et al., 2001; Gonzalez et al., 2012; Villalonga and Amit, 2004; 2006). On the contrary, studying the literature and searching inside academic database (as EBSCO, Google Scholar and similar), we observe a sort of lack of researches about the use of managerial systems in family firms.

## RESEARCH METHOD AND RESEARCH QUESTION

The research has been conducted through an empirical analysis.

The companies selected belong to the FTSE MIB index, to the STAR and the Small Cap one in Borsa Italiana Stock Exchange (223 medium-large sized companies). We choose listed companies, as they adopt a structured strategic and control system, recommend by the Guide of Borsa Italiana (September, 2011); in addition, the firms of the sample do not belong to the same sector to avoid the sector influence. Focusing on Italian companies of the industrial sector, we excluded banks, insurance and other financial companies and also foreign industrial listed companies.

We distinguished the sample in FFs and NNFs using the criterion explained in the Literature section and the information provided by the "Corporate Governance Report" of each company, published on the Borsa Italiana website, and for this research we considered only FFs. Due to the response rate of

14,80 %, in line with the main literature (Lucianetti, 2006), our sample is composed by 33 listed family firms.

The data, both quantitative and qualitative, were collected with a questionnaire and analyzed using statistical tools. The questionnaire allows collecting a significant amount of data, which permits statistical analysis and draws up generalizations (Zimmerman, 2001). The approach used is both qualitative, analyzing the empirical evidence, and quantitative, measuring information.

The questionnaire has been created in the end of 2012 by all the authors and subsequently sent to the companies. Compilation time was about 3 months, with several requests by telephone. All the authors made the data elaboration.

The questionnaire was structured in three sections:

- the first section collected general data of the companies (corporate name, number of employees, revenues, economic sector, and legal form);
- the second section collected data on the trend of the companies (production, orders, employment, and investments);
- the third section collected information on budgeting process.

The appendix 1 contains the above questionnaire.

The main research questions of this study are the following:

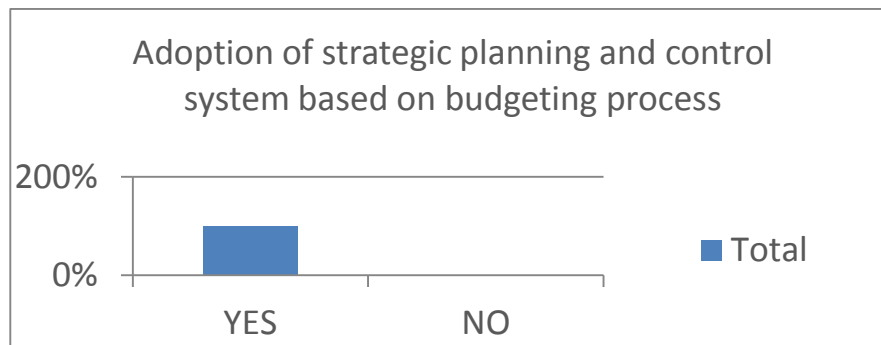
- RQ1: Is yet the budget the main tool of strategic planning and control in the Italian FFs?
- RQ2: What are the main perceived advantages and disadvantages of the budget by these companies?
- RQ3: What is the budget gaming in the Italian FFs?

## FINDINGS

For RQ1 “Is yet the budget the main tool of strategic planning and control in the Italian FFs?”, it emerged that the budget is adopted by the totality of the family firms.

	YES	NO
FAMILY FIRMS	100%	0%

*Exhibit 1. Budget adoption*



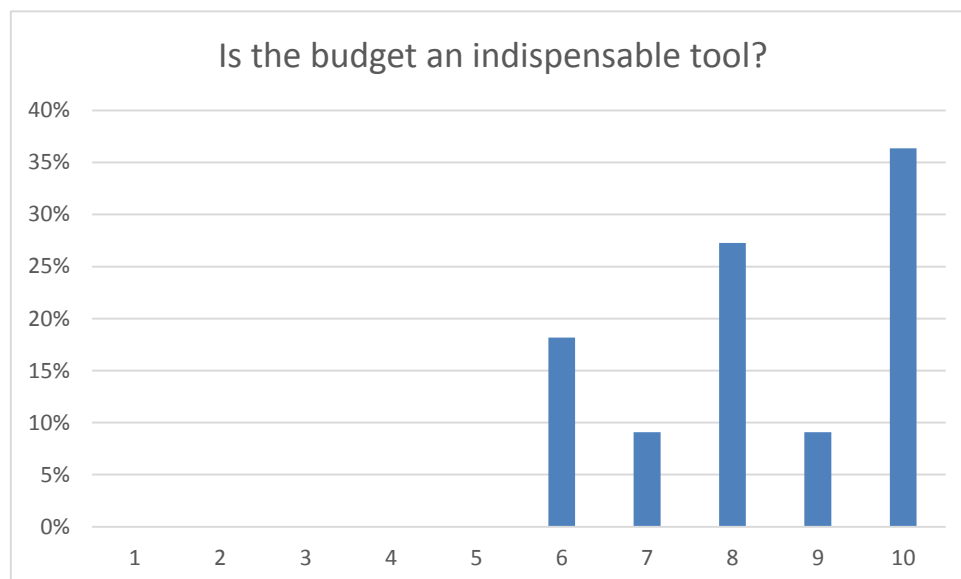
Graph 1. Budget adoption

The answer to the first question is significant, as no companies of the sample abandon the budget. On the contrary, we expected that at least some of these medium – large sized companies abandon the budget. Indeed, in the literature (Hope and Fraser, 2003a, 2003b), it seems that the abandon of budget is encouraged and the first steps are moved in particular by large size companies. Our assumption refers to Italian medium - large sized companies with the purpose to compare their behavioral in an international context.

To strengthen the findings about the first research question, we found that all the companies of the sample considered the budget an essential tool, as they assigned to it a score higher than 6 (on a scale of 1 to 10) in terms of importance, and even the 45% of the companies analyzed (listed FFs) assigned a score between 9 and 10.

	1	2	3	4	5	6	7	8	9	10
FAMILY FIRMS						18%	9%	27%	9%	36%

Exhibit 2. Budget as an indispensable tool

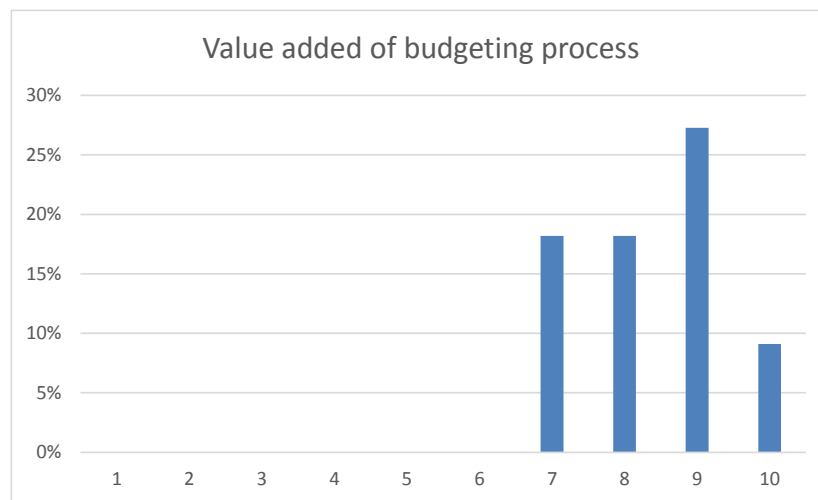


Graph 2. Budget as an indispensable tool

About the value added assigned to this tool, the companies of the sample confirmed the answers to the previous question. Indeed, if we consider both the 9 and 10 scores assigned to the budget, it emerged how the 44% of the listed family firms have assigned a high value added to the budget.

	1	2	3	4	5	6	7	8	9	10
FAMILY FIRMS						0%	18%	18%	27%	9%

*Exhibit 3. Budget - Value added*



*Graph 3. Budget - Value added*

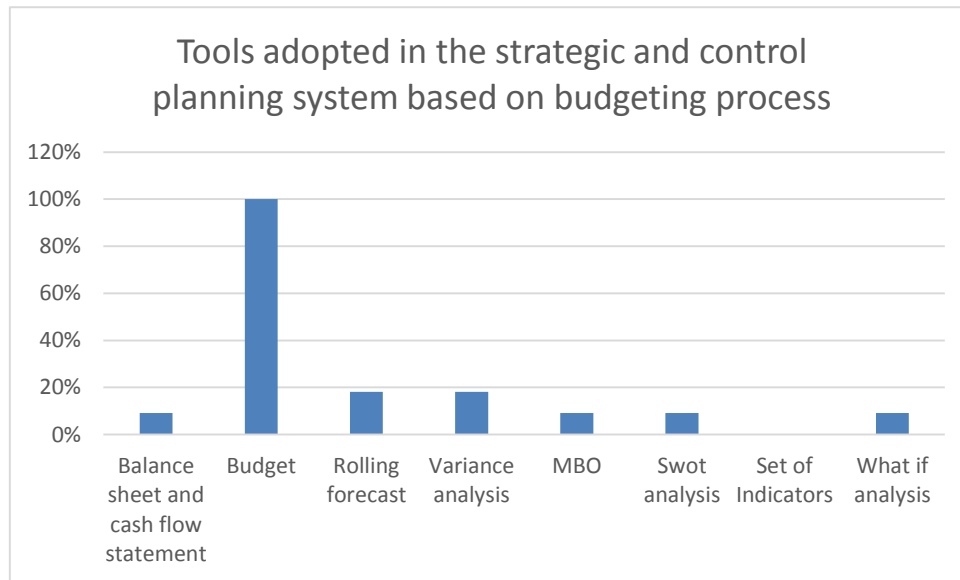
About the other tools adopted in the strategic planning and management control system, it emerged that the budget is the more widespread, followed by (in order):

- Variance analysis (18%);
- Rolling forecast (18%);
- MBO – Swot analysis – What if analysis and Balance sheet and cash flow statement (9%).

In general, the FFs showed a lower adoption of other strategic planning and management control systems.

	Balance sheet and cash flow statement	Budget	Rolling forecast	Variance analysis	MBO	Swot analysis	Set of Indicators	What if analysis
FAMILY FIRMS	9%	100%	18%	18%	9%	9%	0%	9%

*Exhibit 4. Other tools adopted*



Graph 4. Other tools adopted

According to RQ1, the budget is yet the main tool of strategic planning and control in the Italian FFs. In addition, traditional budgeting still appears to retain its strong position (Granlund, 2001), also if it emerged that some tools are developing, such as rolling forecasts and balanced scorecard (Ekholm and Wallin, 2000; Libby and Lindsay, 2010).

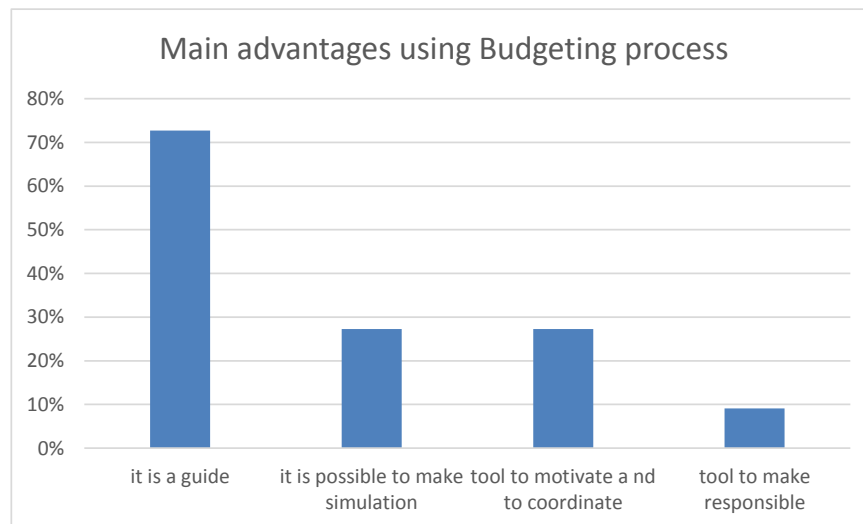
About RQ2 “What are the main perceived advantages and disadvantages of the budget by the companies?” , it emerged that the listed family firms usually perceive also some budget advantages, as:

- the budget is a sort of guide (63%);
- the budget is useful to make simulations (31%);
- the budget is useful to motivate and coordinate the manager (19%);
- the budget is useful to make managers responsible (13%).

In particular, listed FFs considered budget as an important tool to guide decision makers in their short-run decision making process (73%), while a low percentage of FFs assigned to the budget a specific role in terms of organizational mechanisms to make managers responsible (9%).

	it is a guide	it is possible to make simulation	tool to motivate and to coordinate	tool to make responsible
FAMILY FIRMS	73%	27%	27%	9%

Exhibit 5. Budgeting advantages



*Graph 5. Budgeting advantages*

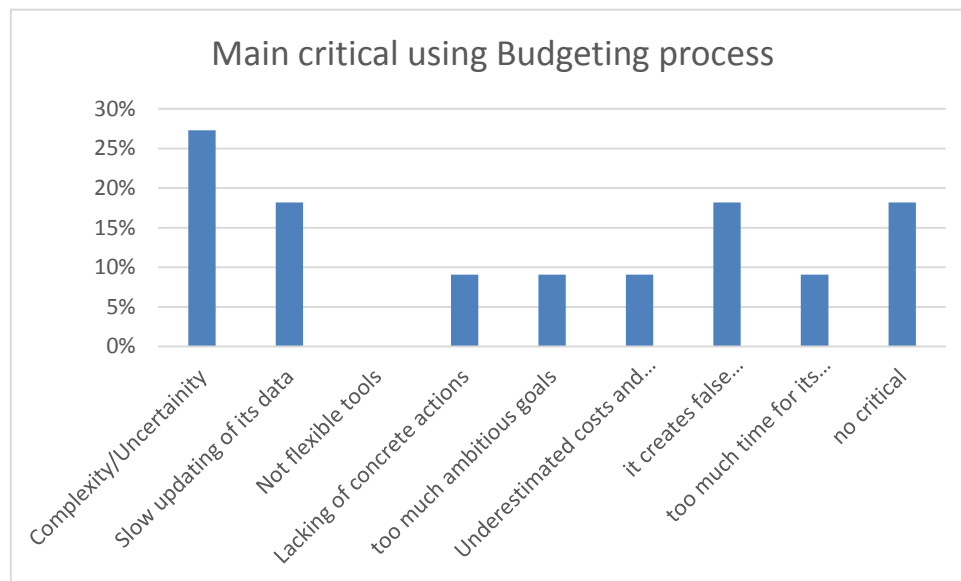
Even if the companies of the sample are strictly tied to the budgeting process and the 18% of them did not identify any critical, some criticisms of this tool were analyzed:

- complexity (27%);
- slow updating of its data (18%);
- it creates false expectations in stakeholders (18%);
- too much time for its drafting (9%);
- lacking of concrete actions (9%);
- too much ambitious goals (9%);
- underestimated costs and overestimated revenues (9%);
- not flexible tools (0%).

In particular, FFs evaluated its complexity/uncertainty as the main important critical of the budget (27%) and they attributed to the slow updating (18%) and the creation of false expectations in stakeholders (18%) a big importance in terms of limits of use.

	Complexity/Uncertainty	Slow updating of its data	Not flexible tools	Lacking of concrete actions	too much ambitious goals	Underestimated costs and overestimated revenues	it creates false expectations in stakeholders	too much time for its drafting	no critical
FAMILY FIRMS	27%	18%	0%	9%	9%	9%	18%	9%	18%

Exhibit 6. Budgeting main critical



Graph 6. Budgeting main critical in the sample

According to RQ2, the main advantages is that the budget is perceived as an important tool to guide decision makers in their short-run decision making process (Brusa, 2012) and main disadvantages of the budget are the complexity and uncertainty (Anthony, 2005; Brusa, 2012; De Luca, 2010).

About RQ3 "What is the budget gaming in the Italian FFs?", the budget gaming emerged are:

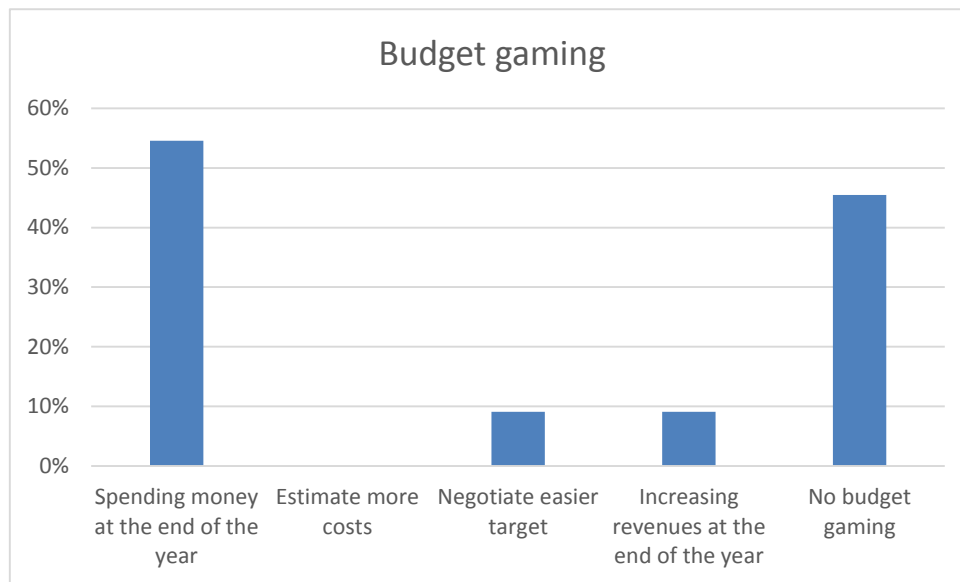
- managers spend money at the end of the year (55%);
- revenues increase at the end of the year (9%);
- managers negotiate easier targets (9%).

Besides, for the 45% of the firms there is not budget gaming.

	Spending money at the end of the year	Estimate more costs	Negotiate easier target	Increasing revenues at the end of the year	No budget gaming
FAMILY FIRMS	55%	0%	9%	9%	45%

Exhibit 7. Budget gaming





*Graph 7. Budget gaming*

It emerged that the main budget gaming is referred to spending money at the end of the year, followed by the increase of revenues at the end of the year together with the negotiation of easier target.

According to RQ3, the budget gaming is widespread also in the Italian listed FFs, as showed in the literature (Libby and Lindsay, 2010, Ostergren and Stensaker, 2011), also if the 45% of the sample states that there are no budget games in the firm.

## CONCLUSIONS, IMPLICATIONS AND LIMITATIONS

This study shows that the budget is yet a fundamental tool for Italian listed Family Firms. It seems that listed FFs use budget only as a tool to guide and support the short-run decision making process, and not as an organizational system to make managers responsible and the other advanced tools of strategic management system are not widespread.

In any case, budget needs to be joined by other tools to overcome its limitations and besides the problem about the budget gaming and it seems that listed FFs adopt a short-term perspective.

Despite a certain part of the literature affirms that the budget tool is overcome, our study states that the companies of the sample adopt the budget in their management control process.

The scope of this study is relevant for the literature concerning the use of the budget in Italian listed FFs.

These findings can also be generalized for firms operating in other countries, especially where the FFs phenomenon is widespread as in Italy, and future developments of this study would make a comparison among companies from different countries.

Concluding, it is possible to affirm that in the Italian listed FFs (considering the manufacturing medium-large sized companies listed on Borsa Italiana Stock Exchange, belonging to the FTSE MIB

index and to the STAR and Small Cap one), the budget is yet widespread and it is not possible to abandon this tool. This is true, even if it is recommended to joint other tools to satisfy new needs as:

- to adapt at changing market conditions and customers needs;
- to increase innovation in a broad sense (product/process);
- to achieve a correct support to decentralization.

This study has to be improved analyzing more firms and comparing the Italian context with other countries. Indeed, this study presents some limitations that can be summarized as specified below:

- only listed companies are considered. Nevertheless, the listed companies represent an homogeneous sample in terms of organizational and financial features;
- the lack of comparison with NFFs;
- the method adopted could be integrated with some econometrical models.

Further research will remove stated limits and especially analyze the impact of budget use on performance, distinguishing between FFs and NFFs (large and not-large), taking into account the existence of a correlation between the budget use on the one hand, with achieved performance on the other.

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## APPENDIX 1

The main questions included in the questionnaire were the following:

- Do you adopt the budgeting process in your firm?

If yes:

- Budgets are indispensable in your firm? (on a scale of 1 to 10)
- Are budgeting systems adding value to your firm? (on a scale of 1 to 10)
- What are other tools used in your firm in the strategic planning and management control system?
- What are the main advantages of the budget?
- What are the main criticisms of the budget?
- What is the budget gaming in your firm?
- If no:
- Why does your firm not adopt the budget?
- What are the main criticisms of the budget?
- Are there and what are the “new tools” adopted in your firm?

## INTERNATIONALIZATION OF NON PROFIT ORGANIZATIONS; IS IT REALLY DIFFERENT?

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### ABSTRACT

Internationalization of the organizations has been studied for a very long period of time, starting around early nineteenth century. The Initial research on this area focused on Foreign Direct Investments (FDIs) and the focus was later shifted into the studying of the Multinational Corporations (MNCs) as they were later regarded as the forefront of internationalization of the businesses. As a result of this attention, there is considerable amount of literature exists pertaining to this area. However an important observation is that, all most all of this previous knowledge on internationalization exists with respect to For-profit Organizations (FPOs) and internationalization of Nonprofit Organizations (NPOs) that have been relatively absent from the mainstream management literature. Therefore the objective of this paper is to briefly summarize the main explanations about the two sectors, highlight the differences between the two sectors and thereby argue that internationalization process of these two types of organizations are different. The study developed three propositions related to three key internationalization issues faced by organizations, they are motives for internationalization, international market selection and the entry mode choice. Due to the structural differences in the two sectors in terms of missions, financing and planning, the study argues that, the NPOs internationalize for different reasons, to different markets using different entry modes.

**Keywords:** *Entry Modes, International Market Selection, Motives for Internationalization, Non Profit Organizations*

### INTRODUCTION

Internationalization of the organizations has been studied for a very long period of time, starting around early nineteenth century. Initial research on this area focused on Foreign Direct Investments (FDIs) and the focus later shifted into the studying of the Multinational Corporations (MNCs) as they were later regarded as the forefront of internationalization of the businesses. As a result of this attention, there is considerable amount of literature exists pertaining to this area and, management researchers are fairly knowledgeable about the internationalization of organizations.

However, organizations can be categorized into two broad categories, For-Profit Organizations (FPOs); whose main objective is earning profits, and non-profit organizations (NPOs); whose main objective is not to earn profits but to do something good. Strategies used by an organizations is largely depend upon its objectives, thus it is argued that strategies used by FPOs and NPOs are different from each other, including internationalization strategies.

How ever an important observation is that all most all of this previous knowledge on internationalization exists with respect to FPOs. In fact internationalization of NPOs have been relatively absent from the mainstream management literature (Lambell, et al.2008), despite their uniqueness. Thus there is considerable research gap exists when it comes to internationalization of the NPOs (Teegen, Doh, & Vachani, 2004).

Therefore the objective of this paper is to briefly summarize the main explanations about the two sectors, highlight the differences between the two sectors and thereby argue that internationalization decisions faced by these two types of organizations are different.

## LITERATURE REVIEW

### *Organizational types*

Sustaining profitability in the long run is a challenge as well as a necessity for any profit oriented firm; as a result many firms do not survive for long. There are at least four different theories of profit; namely competitive advantage, rivalry restraint, information asymmetry and commitment timing (Makadok, 2011). The study will discuss each of these theories in brief, however it is important to note that in most cases these theories are complementary rather than contradictory, thus there is significant amount of overlap.

Theories of competitive advantage highlight the importance of having superior processes so that conversion process from inputs to outputs for a given firm is superior compared to its competitors thus giving that firm a competitive advantage which will enable the firm to make profits (Makadok, 2011). Resource based View (RBV) is one of the most influential competitive advantage theories. Rivalry restraint theories highlight the importance of avoiding or managing the competition for sustaining profitability (Makadok, 2011). Information asymmetry argues the importance of information in decision making and highlights that the access to certain information might reduce the chances of adverse selection (Akerlof, 1970) or moral hazard (Grubel, 1971) and place a given organization in a superior position. Transaction Cost Analysis (TCA) explains some of these transaction costs and highlights the impact of those costs in organizations' performance. Finally timing of certain decisions also influence profitability of a firm (Makadok, 2011), firms can enter

markets first with higher uncertainties and higher returns or might wait till some other organizations to clear the uncertainties and then enter later but with average or low returns.

On the other hand, there are at least two main economic theories which explain the nonprofit sector; contract failure theory and government failure theory (Clarke & Estes, 1992). In order to be efficient, market system requires flowing conditions, reasonable knowledge of the markets by all parties, ability to reach explicit agreements with the intended parties, and finally the ability to confirm the compliance to the agreement (Hansmann, 1987). In the absence of these conditions "a for-profit firm has both the incentive and the opportunity to take advantage of customers by providing less service to them, than was promised and paid for" (Hansmann, 1987, p. 29). However a nonprofit firm due to its non-distributive constraint is tend to be less opportunistic in the same scenario (Clarke & Estes, 1992; Hansmann, 1987). Thus the contract failure theory argues that nonprofits will be more effective in circumstances where market system fails. As far as government failure theory is concerned, governments tend to address their programmes to average citizens, thus there will be always more of certain goods and services and less of other goods and services, NPOs' tend to fill this gap by targeting these marginalized communities by the government programmes (Clarke & Estes, 1992).

These two theories are been recognized as the two main explanation of growth as well as the existence of the nonprofit sector.

#### *For-profit organizations and non-profit organizations; the difference*

The discussion here will try to establish the main differences between non-profit and for-profit sectors with the objective of understanding the influences it will have on decision making process of the organization in general and internationalization decision in particular. Under this, at least three broader areas of differences can be identified, mission/objectives (Epstein & McFarlan, 2011; Gilmour, 2007; Hansmann, 1987; Hull & Lio, 2006), financing (Epstein & McFarlan, 2011; Lewis, 1999; Moore, 2000) and structure (Euske, 2003; Hull & Lio, 2006; Nutt & Backoff, 1993).

Mission of a for-profit organization basically serves as a guide, to how the profit should be achieved, while for a not for-profit, mission defines the overall goal of the organization, which is to create positive social change (Hull & Lio, 2006). Financing of a for-profit organization comprises with funds from capital markets (equity and debt) and funds from operations, while financing for a not for-profit organization comes mainly from grants (Epstein & McFarlan, 2011). As far as the structure of a for-profit organization is concerned, for-profits firms are owned by its shareholders thus the entity is primarily responsible for them (Hull & Lio, 2006) and therefore decision making generally be top down, not for-profits on the other hand are equally responsible for its donors, beneficiaries, and many other stakeholders (Epstein & McFarlan, 2011) thus the chain of command is not so clear. See table 1 for the summary. Author believes that these differences will directly influence the decision making of



these entities thus the study will use these differences in arguing for differences in internationalization decisions among nonprofits and for-profits.

Table 1: Main differences between not for-profits and for-profits organizations

Criteria	Not for-profit	For-profit
Mission/Objectives	Mainly Social - To create as much positive social change as possible	Mainly Economical - To manage the overall profitability of the organization
Ownership & Financing	Donors, Employees, Many stakeholders	Shareholders
Management and Planning	Bottom up	Top Down

Source: Literature review

#### *Internationalization process of an organization*

“Internationalization is the process of adapting exchange transaction modality to international markets” (Calof & Beamish, 1995 p. 115 ). Internationalization is also a process including many critical steps (Andersen, 1997), out of which, understanding motives for internationalization, which markets to enter and using which methods to enter those markets, are the most important.

First the firm should decide whether to internationalize or not, in order to understand this decision, it is important to examine the motives for firms to internationalize. According to Etemad (2004) firms internationalize as a result of push factors (industry competition, economy, legislation, & domestic saturation) and/or pull factors (economic & political stability in international markets, new opportunities, access to resources, etc.). Once a firm decides to go international it has to decide what markets/countries it is planning to enter. Once the decision of which markets to be entered is finalized, a firm has to evaluate and select a proper entry mode (Sakarya, Eckman, & Hyllegard, 2007). Then the timing of the entry and finally a firm has to decide on the mode of operations.

As far as this particular study is concerned, the focus will be on internationalization motives, international market selection and the entry mode selection. The study will try to argue that there are critical differences among FPOs and NPOs in terms of internationalization related decision making because of the differences in the two sectors.

#### *Internationalization of for-profit firms*

The general theory suggests that there are four main motives behind FPO internationalization, namely natural resource seeking, market-seeking, efficiency seeking and innovations seeking (Dunning & Lundan, 2008). Natural seeking refers to organization’s internationalizing with the primary focus of obtaining natural resources like oil, minerals, etc, while market seeking refers to organization’s

internationalizing with the objective of serving their customers better. Efficiency seeking organizations would internationalize to minimize their cost of production and innovation seeking organizations internationalize with the objective of increasing access to new technologies and to facilitate learning. There is also significant number of other theories explaining different aspects of the internationalization of FPOs, the study will briefly outline the following main contributions in this regard, International Product Life Cycle Theory (IPLCT), Monopolistic Advantage Theory, Eclectic Paradigm, Uppsala Model and the Network Theory.

The IPLC theory “emphasizes upon comparative cost doctrine and more upon the timing of innovation, the effects of scale economies, and the roles of ignorance and uncertainty in influencing trade patterns” (Vernon, 1966: 190). The focus of the theory is at the product level compared with other theories (Allred and Swan, 2005). The theory suggests four phases, in the first phase, U.S. exports, dominates the world market, in the second phase the awareness about the product increases and other countries catch up and start to produce for their home markets, in the third phase with the increased competitiveness other countries are able to export to third world markets and in the final stage these countries are even start to export to the US market which the product was initially innovated (Ayal, 1981). The theory explains the internationalization as depend upon market readiness of its products.

Monopolistic advantage theory argues that the survival and growth of firms outside their borders are determined by the given firms ability to manage its superiorities over their local counterparts in foreign markets (Hymer, 1976). Hymer (1960) further argues that these unique abilities also known as Firm Specific Assets (FSA's) and will allow a firm to overcome "Liability of Foreignness (LOF)" and will allow the firm to be successful in foreign markets. Thus the theory explains internationalization decisions as dependent upon the amount and level of FSAs of a particular firm.

The initial idea of the Eclectic paradigm was presented by Dunning in 1976 at a Noble Symposium, and was further developed so that it will include three factors which will influence a firm's internationalization, namely Ownership advantages (OA), Locational Advantages (LA) and Internalization advantages (IA) (Dunning, 1980, 1988). “The eclectic framework represents a multi-theoretical approach, which used International trade theory (location advantages), resource-based theory (Ownership advantages) and transaction cost theory (internalization advantages) in order to predict internationalization decisions” (Anderson, 1997, p 35). The theory argues that firm's internationalization strategy will be developed in order to manage these advantages.

In early 1970's a new set of research emerged explaining the internationalization of Small and Medium scale Enterprises (SME's), commonly known as stage models of internationalization. In the Uppsala model which emerged based on Nordic countries, Internationalization has been explained as a chain

of gradual events. Firms which operates initially in their home markets, receives demand from foreign customers and starts to export their products in order to meet those demands, and gradually expands their operations and ultimately becomes a fully-fledged foreign operation. For an example Johanson & Paul (1975) identifies four different levels of internationalization namely, no regular export activities, to exporting through independent agents, to starting an overseas sales unit and finally overseas production.

Network theory on the other hand assumes that especially service based firms internationalize because of and using their mutually beneficial relationships with other network partners (O'Farrell et al. 1998). Further According to Malhotra, Agarwal, and Ulgado (2003), development of these networks represent dynamic, complex and less structured patterns. Networks can be in the form of both formal and informal and the main idea is coordination rather than competition.

## **PROPOSITION DEVELOPMENT; INTERNATIONALIZATION OF NON-PROFIT FIRMS**

### *Internationalization motives of NPOs*

Ultimate objective of any FPO strategy, including the internationalization strategy is to increase the profitability and the long run survival of the organization. Therefore as explained earlier FPOs internationalize for four main motives, natural resource seeking, market-seeking, efficiency seeking and innovations seeking (Dunning & Lundan, 2008).

NPOs on the other hand due to their non-profit orientation and socially driven mission would have different objectives in strategy selection. The available literature on NPO international strategy selection is very limited (Teegen et al., 2004). However as per available limited literature, there are several major reasons why NPOs internationalize. In certain cases, they are founded on missions with serving marginalized communities outside their home country (Baguley, Cornforth, Mallory, & Keynes, 2004). For an example "Save the Children", was initially founded in UK to take care of German and Austrian children, who were marginalized by their disrupted economies. Some NPOs internationalize because they deal with issues which are global in nature like poverty, rights violation, access to education, etc. (Siméant, 2005). For an example Amnesty International works on minimizing human rights violations by governments, which is a global issue. Then there are NPOs who responds to requests from beneficiaries abroad or respond to sudden changes of circumstances like disasters. For an example significant amount of disaster relief organizations responded to 2004 Asian Tsunami and went into Indonesia and Sri Lanka as those two were the mostly affected countries. There are also NPOs who wants to share their knowledge as well as to learn from their counterparts, to be more

efficient and then finally there are NPOs who have grown in their home markets and looking to expand their services across borders (eg: Red Cross) (Bennett & Ali-Choudhury, 2010).

Therefore it is obvious that there are differences in motives among two sectors when it comes to internationalization. Therefore the study proposes the following proposition.

P1: NPOs have different motives for internationalization compared with their for-profit counterparts.

#### *International market selection of NPOs*

Market selection is a very important decision for an internationalizing organization (Papadopoulos & Martín, 2011) and FPOs select markets which provide them with the highest returns. Thus FPOs tend to select markets with higher market potentials, lesser psychic differences, lesser risk profiles and lesser competition, because each of these mentioned factors have positive relationships with organizational profitability (Brouthers, Mukhopadhyay, Wilkinson, & Brouthers, 2009).

But as explained earlier NPOs have social missions, many stakeholders and bottom up planning. On the other hand FPOs have economically motivated missions, and mainly responsible for increasing the wealth of its shareholders. As a result of these differences the factors which affect market selection of these two types of organizations also can differ. Even though there is a considerable knowledge about the factors affecting FPOs, the factors which affect market selection of NPOs remains relatively unknown (Brass, 2012). However due to the differences between the two sectors, the study proposes the following proposition.

P2: NPOs use different criteria in international market selection compared with their for-profit counterparts.

#### *Entry mode selection of NPOs*

As explained earlier FPOs will select an entry mode which provides them with the highest returns for its shareholders. However, given firm's choices are also determined by the availability of resources and desire for control (Anderson & Gatignon, 1986). For a FPO, level of control they obtain under each entry mode will be of critical importance, because it can influence the risks an organization takes and thereby the returns (Barkema, Bell, & Pennings, 1996). Control refers to the "level of authority a firm may exercise over systems, methods, and decisions of the foreign affiliate" (Ekeledo & Sivakumar, 2004). Thus one of the most common bases for categorizing entry modes is control. Previous literature found out that size of the organization and international experience have positive relationship with a firm's selection of high control entry modes, while country risk have a negative relationship with control preferred.

NPOs however due to their differences in objectives and ownership, are not that much worried about the level of control they have, as long as their socially oriented missions can be accomplished. Thus there is a tendency for a NPO to prefer shared control entry modes as long as they can find a "natural

local partner". "If a local partner has similar interests, objectives and intended beneficiaries, like the internationalizing NPO, then the local partner can be called a natural partner" (Fowler, 1991a, p. 11). Because for a NPO, main objective would be to do as much social good as possible and one can do it more effectively if they do it together with a partner with similar objectives.

P3: Entry mode choices of NPOs are influenced by different set of factors compared with their for-profit counterparts.

## CONCLUSIONS

Despite the growth in number of NPOs operating abroad, there have been very little work done in the particular context. The objective of this paper was to highlight the differences between for-profit and non-profit sectors and thereby argue that the internationalization decisions faced by organizations belonging to these two sectors are different.

The study developed three propositions related to three key internationalization issues faced by organizations, i.e. motives for internationalization, international market selection and the entry mode choice. Due to the structural differences in the two sectors in terms of missions, financing and planning, the study argues that, NPOs internationalize for different reasons, to different markets using different entry modes compared to their for-profit counterparts.

The study provides a basis for future empirical research to bridge the knowledge gap in the area. There are also possibilities to explore further into each of these internationalization decisions and there by understand motives behind these internationalization decisions.

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## BOARDS AND FIRMS' ENVIRONMENTAL PROACTIVITY: EVIDENCE FROM EUROPEAN POLLUTING INDUSTRIES

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### ABSTRACT

The present paper addresses the relation between board size and composition and firms' environmental proactivity. Specifically, it aims at exploring the relationship between firms' board structure and their green proactivity, within the agency theory and resource dependence theory frameworks, in order to outline if particular types of board composition could act as a stimulating driver for firms' proactive environmental strategies.

The theoretical analysis is completed by an empirical exploration, performed by two linear regression models, on a sample of European firms, belonging to polluting industries, that were included in the Carbon Disclosure Project questionnaire 2012. The Score emerging from the questionnaire is considered as a proxy for firms' environmental proactivity, while the industry choice is related to the increasing pressure for better environmental performance that polluting industries are nowadays experiencing because of the stakeholders' and media requests.

The results show that board composition matters in firms' environmental proactivity. In particular, firms with a higher percentage of independent directors in the board and a two tier system of governance present superior environmental proactivity, while a greater percentage of non executive directors and of women or board size do not seem to be related with firms' proactive environmental strategies.

**Keywords:** *Environmental Proactivity, Corporate Governance, Board of directors, Carbon Disclosure Project, Independent Directors, Non-Executive Directors, Gender Diversity, Polluting industries.*

### INTRODUCTION

In recent years, scholars and managers have devoted greater attention to the strategic implications of corporate social responsibility (CSR): the success of a business is in fact no longer defined only by monetary gains but also by the impact that an organization's activities have on society as a whole. Achieving sustainability is therefore one of the most relevant challenges for society and firms.



In particular, companies can play a key role in order to reduce the global environmental impact of the present society (Carballo-Penela and Castromán-Diz, 2014); that's why the commitment to the natural environment has become an important variable within the current competitive scenarios (Gonzales-Benito and Gonzales-Benito, 2006) and environmental performance is increasingly considered a strategic issue for firms. This is particularly true for firms belonging to polluting industries which are increasingly forced to change their attitude towards green issues (Bansal, 2005; Sharma and Henriques, 2005). The emerging consumers' preference for greener products and services, together with the pressure operated by stringent governmental regulations and by stakeholders (Kassinis and Vafeas, 2006) and media are, in fact, requesting corporate managers to adopt better environmental behaviors (Kock *et al.*, 2012).

These behaviors, in particular, may range in a continuum between two extreme positions (Gonzales-Benito and Gonzales-Benito, 2006): a passive, or reactive, performance, by which companies decide to follow only the necessary actions in order to meet regulatory requirements; a proactive conduct, specific of firms that decide to voluntarily introduce policies and actions to prevent or decrease their impact on the natural environment.

As there is a growing evidence that a proactive environmental strategy may help firms to gain competitive advantage, such strategy, and in particular its drivers and impact on business performance, has been object, in the last few years, of an ongoing debate.

The Organizations and Natural Environment literature has, in fact, extensively developed on the drivers of firms' proactive environmental strategies, focusing on a variety of antecedents, such as: regulation (Ambec and Lanoie, 2006), stakeholder pressure (Henriques and Sadosky, 1999), firm's ethical attitude (Bansal and Roth, 2000), industry structure (Claver *et al.*, 2007), geographic location, company's size, its position in the value chain (Gonzales-Benito and Gonzales-Benito, 2006) or the perception of new business opportunities (Bansal and Roth, 2000). A few studies have recently explored the influence of corporate governance mechanisms on firms' environmental performance and proactivity (Berrone and Gomez-Mejia, 2009; Earnhart and Lizal, 2006; Kock *et al.*, 2012; Ortiz-de-Mandojana *et al.*, 2012; Ortiz-de-Mandojana and Aragon-Correa, 2013), trying to understand if there are mechanisms that may direct managers towards green practices, but the relationship between corporate governance, in particular corporate ownership and board structure, and firms' environmental proactivity has not been sufficiently investigated and the debate is still open.

The present paper contributes to extant literature by analyzing the relationship between corporate board's structure and firm environmental proactivity, in order to visualize if some types of directors (non executive directors, independent directors or women) or particular features of the board (size

and structure: one tier or two tier system) could act as a stimulating driver for firms' proactive environmental strategies.

Using a sample of European firms belonging to polluting industries that responded to the Carbon Disclosure Project (CDP), this study highlights the importance of a firm's board with respect to companies' proactive environmental conducts, advancing knowledge in the understanding of the drivers of such strategies. Moreover, while most of the studies investigating this issue are focused on Anglo-Saxon countries, in particular US (Kock *et al.*, 2012; Berrone and Gomez-Mejia, 2009; Darnall and Edwards, 2006) or developing countries (Meng *et al.*, 2013; Earnhart and Lizal, 2006), our analysis is focused on companies belonging to different European non Anglo-Saxon countries (in particular France, Italy, Spain, Portugal and Switzerland).

The remainder of the paper is organized as follows: the next section reviews prior studies on the drivers of proactive environmental strategies and, in particular, the relationship between corporate board structure and firms' green attitude, and it develops the research hypotheses. The subsequent section discusses the data and the adopted methodology. Then, the descriptive statistics and the results of the analysis, together with a formal discussion of the implications of the results are presented. Lastly, the final section concludes the paper summarizing the main findings and limitations of the study.

## **BOARDS OF DIRECTORS AND PROACTIVE ENVIRONMENTAL STRATEGIES: CONCEPTUAL FOUNDATIONS AND RESEARCH HYPOTHESES**

The Organizations and the Natural Environmental scholars (Berry and Rondinelli, 1998; Sharma and Vredenburg, 1998) defined proactive environmental strategies (PES) as the reduction of a firm's environmental impact and the management of the relationship between business and nature beyond imposed compliance (Sharma, 2000; Aragon-Correa and Sharma, 2003; Gonzales-Benito and Gonzales-Benito, 2006). Thus, a firm that adopts a PES is trying to anticipate future regulations and trends, designing and managing new and alternative operations, processes, and products in order to prevent (instead of simply correct) negative environmental impacts (Aragon-Correa and Sharma, 2003).

A proactive environmental strategy may be ideally seen as the last stage of a firm's environmental efforts that influence management practices (Hunt and Auster, 1990) and it is usually characterized by the presence of four basic elements: (a) regulatory proactivity, (b) operational improvements, (c) organizational changes, and (d) environmental reporting (Delmas *et al.*, 2011). In other words, a proactive environmental strategy is not just a firm's reaction to regulation, but it implies the adoption of advanced environmental oriented organizational systems and measures in all management decision

areas (Gonzales-Benito and Gonzales-Benito, 2006). Several studies recognized that the introduction of environmental protection may be used by companies to develop successful strategies aimed at gaining competitive advantage, enhancing their position in the market and developing the resources and capabilities in order to build a long term profit potential (Bansal and Roth, 2000). Consequently, a number of scholars from different fields of study, have tried to identify and analyze the drivers that may encourage a company to develop and sustain its environmental proactivity, together with its environmental performance.

Prior studies have classified environmental drivers in organizational, or internal, and contextual, or external (Ghobadian *et al.*, 1998; Gonzales-Benito and Gonzales-Benito, 2006; Claver *et al.*, 2007). Essentially, environmental regulation (Ambec and Barla, 2006; Bansal and Roth, 2000; Majumdar and Marcus, 2001) and stakeholder pressure (Buysse and Verbake, 2003; Henriques and Sadorsky, 1999; Garcés-Ayerbe *et al.*, 2012) represent the external factors, while company characteristics constitute the internal ones, both moderated by the presence and strength of ethical attitude (Husted, 2005).

In particular, internal drivers have been detected as key elements for improving firms' voluntary orientation towards green issues. Company's structural features, such as firm's size, position in the value chain and type of industrial sector exert, in fact, considerable pressure in the direction of proactive environmental strategies. Moreover, applying the so called "natural resource-based view" of the firms (Hart, 1995; Aragon-Correa and Sharma, 2003) also intangible resources (Surroca *et al.*, 2010), absorptive capabilities (Delmas *et al.*, 2011), complementary assets (Christmann, 2000) managerial attitude and motivation (Fernández *et al.*, 1996; Hust and Auster, 1990), leadership capability (Azzone and Noci, 1998), and intellectual capital (Claver *et al.*, 2007) may affect a firm's ability to detect economic opportunities from environmental engagement and the effective implementation of corporate environmental strategies.

A recently growing stream of literature has examined the linkages between corporate governance issues and firms' PES, challenging the role of ownership structure as well as board composition, but the few studies on the issue have provided contradictory results and the relationship should be further exploited.

Most of the papers have their roots in the agency problem caused by the separation between management and ownership (Jensen and Meckling, 1976; Shleifer and Vishny, 1997) and are focused on "how some corporate governance mechanisms resolve the divergence of interests between firm owners (principal) and managers (agent) with respect to environmental practices" (Kock *et al.*, 2012, p. 493): in particular, executive pay (Berrone and Gomez-Mejia, 2009; Cordero and Sarkis, 2008), the market for corporate control, the composition of the board of directors (de Villiers *et al.*, 2011) and equity based incentive plans (Kock *et al.*, 2012).

As regards firms' ownership structure, some authors have outlined the influence exerted by family ownership on the adoption of proactive environmental strategies, even though with contradictory results (Berrone *et al.*, 2010; Craig and Dibrell, 2006; Lepoutre, 2008; Sharma and Irving, 2005). Darnall and Edwards (2006), instead, investigated the relationships between government-based or market-based ownership and the costs of adopting an Environmental Management System (EMS), showing that publicly traded firms incur lower costs, while Earnhart and Lizal (2006), distinguishing between concentrated ownership, with the presence of a strategic investor, and diffuse ownership, with the predominance of institutional investors, found a connection between greater ownership concentration and better environmental performance.

As regards the relation between boards and firms' environmental proactivity, most of the studies are concentrated on the board's ability to create ties and relations with the external environment through board interlocks. The influence of director interlocks on the value generated by the social capital of the board may, in fact, improve corporate environmental performance (Ortiz-de-Mandojana and Aragon-Correa, 2013). Ortiz-de-Mandojana *et al.* (2012), in particular, reported that board interlocks may enhance or inhibit the adoption of PES: director interlocks with firms providing knowledge-intensive business services are beneficial for the adoption of PES, while those with fossil fuel suppliers and financial institutions are found to be negatively related. Moreover, such mechanisms seem positively connected also with the environmental performance, especially when a firm is linked to a larger parent company and in cases of low and high levels of interlock diversity (Ortiz-de-Mandojana and Aragon-Correa, 2013). Less attention has, instead, been given to the analysis of corporate board structure and composition. Kassinis and Vafeas (2006) found that board size and the presence of executive members on the board are positively related to environmental litigation, while Kock *et al.* (2012) reported a positive association between the environmental performance of a firm and the presence of pro-stakeholder directors in the board. A direct relationship was also found in case of presence of independent directors, legal experts and board size (de Villiers *et al.*, 2011).

Our aim is, therefore, to fulfill this literature gap, trying to understand if board size and different types of director could influence the orientation of a firm towards PES and testing our hypotheses on a sample of non Anglo-Saxon European firms belonging to polluting industries, where the commitment to the environment requested by stakeholders tends to be higher.

As Hillman and Dalziel (2003) and de Villiers *et al.* (2011) pointed out, the resource dependence theory and the agency theory provide the general theoretical frameworks for analysing how the size and the composition of the board can affect firms' environmental proactivity. Boards, in fact, have two functions, namely, to monitor management and align its interests to those of shareholders and to increase access to information and other resources.

The resource dependence theory (Pfeffer, 1972; Pfeffer and Salancik, 1978) views organisations as operating in an open system and needing to exchange and acquire certain resources to survive, creating a dependency between firms and external environment. In this framework, boards are seen positively, as they may provide valuable expertise and capabilities, influence and aid in strategy formulation and help in connecting the firm with stakeholders (Ortiz-de-Mandojana and Aragon-Correa, 2013). In this way, larger boards, with a variety of directors, may expand existing board member networks and contacts and help firms to better understand and respond to their stakeholders (Boyd, 1990), also in case of natural environmental issues.

Therefore, following the results of de Villiers *et al.* (2011), that showed how environmental performance tends to be higher in firms with larger boards, we hypothesize that:

*H1: Larger boards are positively related with firms' environmental proactivity.*

Within the resource dependence theory, diversity in general, and differences in gender in particular, very likely enrich the resources and capabilities of a board, producing unique information available to management for better decision making. As some researchers have pointed out that women have a more protective attitude towards the environment (Wehrmeyer and McNeil, 2000) and are more likely than males to be ecologically conscious (Park *et al.*, 2012), we expect firms that have a higher percentage of women in the board to be more environmental proactive. Thus, following Setò-Pamies (2013), we hypothesize that:

*H2: A higher percentage of women in the board is positively related with firms' environmental proactivity.*

Following the agency theory framework, the board of directors is an internal control mechanism used to ensure that management behaviour is consistent with the owners' interests (Jensen and Meckling, 1976; Shleifer and Vishny, 1997). Such instrument should not only fulfil its responsibility in monitoring agents and protecting shareholders, but also, more importantly, in managing stakeholders. Board's directors may, in fact, exert pressures over managers in order to have strategies and actions that satisfy shareholders (and stakeholders) interests. Therefore, they should be able to influence executive managers to adopt proactive environmental strategies, that could help firms to obtain a sustainable competitive advantage. An effective control depends, in particular, on whether the directors are non executive and independent (professional managers with expertise in monitoring activities, who have incentives to exercise control in order to maintain their reputational capital), thus able to indeed act on the shareholders' behalf: de Villiers *et al.* (2011) found, in fact, a positive relation between the presence

of independent directors and a firm environmental performance. Johnson and Greening (1999), instead, showed that outside director representation was positively related to corporate social performance. Thus, following the mainstream literature, we hypothesize that:

*H3: A higher percentage of non executive directors in the board is positively related with firms' environmental proactivity.*

*H4: A higher percentage of independent directors in the board is positively related with firms' environmental proactivity.*

Board structures are not homogeneous across countries, and, even in the same country, it is possible to adopt different governance systems (Weimer and Pape, 1999). The company law in many European nations allows, in fact, listed firms to adopt a two-tier board (as opposed to a unitary board) composed of a Management Board and a Supervisory Board. The dual board structure ensure the independence of the two boards by making sure that executives are not too powerful and the Supervisory Board has the duty of protecting stakeholders' interests, related also to environmental issues. Thus, we expect that firms adopting a two-tier board present a higher level of environmental proactivity, in comparison to those adopting a one-board system:

*H5: The adoption of a two-tier board is positively related with firms' environmental proactivity.*

## METHODOLOGY AND DATA COLLECTION

In order to test our hypotheses, we explain variations in firms' environmental proactivity using two OLS regression models, where board structure and composition constitute the primary explanatory variables. This methodology has already been used to predict the relationships between several variables and different metrics of environmental engagement or performance (Majumdar and Marcus, 2001; Surroca *et al.*, 2010), so it appears to be an appropriate method of analysis.

### *Variables' measurement*

Considering the difficult task of defining and measuring PES, we decided to employ an environmental proactivity index that could measure the extent of management commitment to climate change and environmental disclosure. Consistent with the definition provided by Delmas *et al.* (2011), in fact, the measure of environmental disclosure could be considered a proxy of environmental proactivity.

We therefore used, as dependent variable (i. e. firms' environmental proactivity), the company's Carbon Disclosure Score (CDS) 2012, measured by the Carbon Disclosure Project (CDP), an

independent, not for profit organization that provides environmental and climate change data of companies and cities through an annual questionnaire.

Such questionnaire covers different topics, such as the emission reduction strategies adopted, technologies, products, processes or services the company develops or applies in response to climate change, the extent to which a company has measured its carbon emissions, and the frequency and relevance of disclosure to key corporate stakeholders. The Carbon Disclosure Score is the index that gathers all these factors and goes from 0 to 100.

A CDS smaller than 50 indicates limited or restricted ability to measure and disclose risks and opportunities that come from carbon emissions and environmental concerns. On the contrary, companies with a CDS higher than 70 show a deeper involvement in climate change issues. These companies identify environmental management as a tool to achieve strategic advantage and include climate change related risks and opportunities into their core business.

We decided to assign the value 0 to the companies that do not have a score as they did not answer to CDP questionnaire, or asked to not show the results, as a sign of low environmental proactivity.

As regards, instead, the independent variables related to firms' board structure and composition, we collected the data from the companies' annual reports and corporate governance reports 2012, together with Thomson Reuters Datastream Database. In particular, we considered the board size (SIZE), as the total number of directors appointed in the board, and the percentage of women (WOM), non-executive directors (NON-EX) and independent directors (IND) present in the board. We also included a dummy variable to measure the employed board structure in the firm (CGSYSTEM). The variable assumes value 1 for the companies that have a two-tier board and 0 for firms that adopt a one-tier board.

To test the hypotheses we selected a set of control variables, already identified and used in extant literature as relevant drivers for firms' environmental proactivity. These are: company's total annual revenues (REV), as a proxy for size (Gonzales-Benito and Gonzales-Benito, 2006), company's return on equity (ROE), company's longevity (LONG), as usually environmental performance and proactivity increase over time (Hass, 1996) and the Carbon Dioxide Emission (CDE) as a proxy of environmental regulatory stringency. Consistent with Kassinin and Vafeas (2006) and Berrone *et al.* (2010), it is supposed that country's CO<sub>2</sub> emissions are inversely related with regulatory stringency and, as a consequence, with environmental performance. The definition and measurement of all the variables used in the analysis are summarized in Table 1.

Group	Code	Variable	Measurement	Predicted sign
<i>Dependent Variable</i>	CDS	Environmental Proactivity	Carbon Disclosure Score 2012	
<i>Independent Variables</i>				
	SIZE	Board Size	Number of board members	+
	NON-EX	Non Executive directors	% of non-executive directors in the board	+
	IND	Independent directors	% of independent directors in the board	+
	WOM	Gender diversity	% of women directors in the board	+
	CGSYSTEM	Board structure	Dummy variable: 1= two-tier board; 0= one-tier board	+
<i>Control Variables</i>				
	REV	Revenues in 2012	Natural logarithm of the revenues in 2012 (Euro)	+
	LONG	Company's age	No. of years since company's foundation	+
	ROE	Return on Equity	Company's Return on Equity in 2012	+
	CDE	Carbon Dioxide Emissions (CO <sub>2</sub> )	Country's CO <sub>2</sub> emissions (metric tons per capita) in 2010	+

Table 1. *Definition and Measurement of the variables*Sample

The sample used in the study consists of the European companies that were included in the Carbon Disclosure Project questionnaire 2012. We decided to focus the attention on the companies that the CDP selected in Switzerland and Austria (350), Italy (100), France (250), Spain and Portugal (125), as the largest in terms of market capitalization, because they all belong to non Anglo-Saxon corporate governance systems and present comparable ownership and board structures.

We then selected only the companies operating in pollutant industries, that are increasingly facing pressure from stakeholders and media towards better environmental performance. In particular, we considered the firms belonging to the following environmentally sensitive industries: mining, oil, gas, chemicals, paper, iron, steel and other metals, electricity (with the exception of renewable energy producers), gas and water distribution.



Our final sample is therefore composed of 162 firms of different European countries (France, Italy, Spain, Switzerland, Austria and Portugal).

## RESULTS AND DISCUSSION

The Descriptive statistics and Pearson's correlation coefficients of the variables used in our analysis are presented in Table 2.

	Mean	Std Dev	CDS	SIZE	NON-EX	IND	WOM	CGSYST	REV	CAP	LONG	CDE
CDS	26.6111	37.2277	1									
SIZE	9.0062	3.9508	.334**	1								
NON-EX	0.6635	0.3312	.186*	.598**	1							
IND	0.4327	0.3221	.320**	.389**	.706**	1						
WOM	0.1200	0.1273	.062	.295**	.299**	.135	1					
CGSYST <sup>b</sup>		0.148	-.056	-.592**	-.838**	-.572**	-.287**	1				
REV	7.3484	2.0736	.593**	.438**	.168*	.310**	.029	-.077	1			
LONG	63.9691	58.4577	.095	.011	.134	.178*	-.005	-.018	.173*	1		
ROE	8.2040	24.0802	.034	.053	.068	-.002	-.058	-.106	.189*	.095	1	
CDE	6.5854	1.2080	-.016	.000	-.305**	-.326**	-.256**	.218**	.038	-.135	.034	1

<sup>a</sup> n=162; <sup>b</sup> % of cases where CGSYSTEM=1

\*\* Significant at 0.01 (2-tails); \* Significant at 0.05 (2-tails) (Pearson's index)

Table 2. *Descriptive statistics and Pearson's correlation*

The average value of the Carbon Disclosure Score is 26.611, with a quite high standard deviation of around 37.23. As regards the independent variables, the average size of the board of directors is 9 members, with a minimum size of 1 director and a maximum of 23 members.

Regarding board composition, the presence of non-executive directors is larger than the independent ones: the average percentage of the first typology in the board is around 66%, while independent directors cover on average 43% of the total board members. Conversely, the presence of women in the board is quite low: only 12% of the board positions are, indeed, covered by women.

Board size presents an high correlation with the other board's characteristics. In particular, the larger is the board, the higher are the percentages of independent (0.389; p-value <0.01), non-executive (0.598; p-value <0.01) and woman (0.295; p-value <0.01) directors in the board. Conversely, board size is negatively related to board structure: the size of two-tier boards is significantly smaller (- 0.592; p-value <0.01) than one-tier boards.

The Pearson's correlation reveals a significant positive correlation between the Carbon Disclosure Score (CDS) and board size (0.334; p-value <0.01), the percentage of non-executive directors (0.186; p-value

<0.05) and independent directors (0.320 ; p-value <0.01). The CDS is also positively correlated with revenues (0.593, p-value <0.01).

For investigating the relationship between board structure and composition and firms' environmental proactivity, we developed two OLS regression models (Table 3): the first model considers only the effects of board characteristics on CDS, while in the second model the control variables are inserted.

<i>Variable</i>	<b>Model</b>	
	<b>1</b>	<b>2</b>
SIZE	4.186** (0.854)	1.360 (0.927)
NON-EX	-2.733 (17.649)	5.3813 (16.331)
IND	46.839** (11.764)	24.778* (11.592)
WOM	2.3850 (22.372)	7.560 (21.239)
CGSYST	44.115** (13.814)	23.491* (13.169)
REV		8.805** (1.500)
LONG		-0.000 (0.044)
ROE		-0.094 (0.103)
CDE		0.181 (2.312)
Constant	-36.827** (13.106)	-69.137** (20.727)
Observations	162	162
Adjusted R-Squared	0.231	0.370
$\Delta$ R-Squared	0.256	0.151
F-Statistics	10.049**	10.849**

Robust standard errors in brackets

\*\* . Significant at 0.01 (2-tails); \* . Significant at 0.05 (2-tails)

Table 3. *Regression analysis results*

Regression results for Model 1 show that, consistent with Hypothesis 1, board size (SIZE) has a significant positive impact on CDS, so the higher the number of directors in a board, the higher is the level of environmental proactivity, as already reported by de Villiers *et al.* (2011). Moreover, consistent with Hypothesis 4 and following de Villiers *et al.* (2011), we found a positive relation between CDS and the percentage of independent directors in the board (IND), while the association with the percentage of women (Hypothesis 2) in the board is not significant, even if correctly signed. We therefore failed to find any relationship between firms' environmental proactivity and gender diversity of the board (WOM), contrary to extant literature focused, in particular, on corporate social responsibility (Setò-Pamies, 2013). Our results are also non consistent with Hypothesis 3: at an higher percentage of non executive directors in the board (NON-EX) does not correspond a statistically significant increase of firms' environmental proactivity (CDS) and the coefficient is also not correctly signed. This finding does not follow the mainstream literature, like Johnson and Greening (1999): maybe, non executive directors are still too closed to management and are not able to fully exploit their monitoring function. Finally, model 1 confirms that two-tier boards (CGSYST) are positively associated with CDS; the presence of a Supervisory Board is probably enhancing the protection of stakeholders' interests, also regarding environmental issues.

Considering control variables (model 2), the regression fit increased (Adjusted T-Squared = 0.370;  $\Delta$  R-Squared = 0.151). Among these drivers, only firm's revenues, considered as a proxy of a company's size (REV = 8.805), positively affect environmental proactivity. However, the introduction of control variables reduces the effect of board structure and composition on CDS. In model 2 the positive coefficients related to the percentage of independent directors (IND) and board system (CGSYST) decrease in value and board size becomes non-significant. It means that firm's size, longevity, profitability and environmental regulatory stringency seem to primarily affect company's environmental proactivity, neutralising the pressure exerted by the board.

Thus, our second model shows that only the weight of independent directors in the board and the presence of two-tier boards significantly affect CDS (24.778), consistent with Hypotheses 4 and 5.

## CONCLUSIONS

The present paper addresses the nature and intensity of the relations existing between board structure and composition and firms' environmental proactivity.

In this regard, founding on agency theory and resource dependence theory assumptions, the manuscript investigates the role of board size, board composition (percentage of women, non executive and independent directors) and structure (two-tier or one-tier board) in affecting the

proactive orientation towards environmental issues of a sample of non Anglo-Saxon European firms belonging to pollutant industries.

Indeed, the results of the two OLS regression models provide insightful evidences that boards do affect firms' PES. Our main findings suggest a positive relationship between the presence of independent directors in the board or the two-tier structure of the board and companies' environmental proactivity, measured by the Carbon Disclosure Score 2012; while the percentage of women and non executive directors, together with board size, do not seem to be related with firms' green proactivity.

Our study presents some limitations that may be ironed out in future studies. The first limitation is related to the measurement of firms' environmental proactivity. We used the Carbon Disclosure Score generated by a voluntary self-reporting process (CDP). This is a reliable index, but it may lead to include in the analysis mainly companies that are already biased towards environmental proactivity and who may want to report it. Secondly, we investigated firms' environmental performance in a quite specific context: namely polluting industries operating in a developed economy, that has both a strong environmental regulation and environmentally conscious consumers.

Despite such limitations, however, this contribution provides some valuable research implications, useful for researchers and academics, but also for managers and public authorities, as the results allow to identify the characteristics of the board that may foster and enforce firms' environmental proactivity, as a mean for reaching sustainability. Companies, in fact, may play a significant role in the reduction of man activities' impact on natural environment and in the promotion of a more ecologically sustainable world.

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## BUSINESS MODEL INNOVATION: A TYPOLOGY

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### ABSTRACT.

The aim of this paper is to clarify what a business model innovation is, how it can be classified and how a change in strategy requires different levels of business model innovation. On the basis of a literature review over 2010-2014 on leading management journals' articles, this paper begins with complementing Zott et al. (2011)'s literature review in three ways. First, it sheds light on the different perspectives that have been used with respect to the business model. Second, it presents the state of the art about business model innovation. Finally, it summarizes how business model and strategy have been analyzed by previous research. Then, drawing from the technology innovation literature and adopting Baden Fuller and Haefliger (2013)'s business model dimensions, the paper proposes a typology of business model innovation, distinguishing between incremental and radical business model innovation. In order to clarify the role of strategy with respect to business model innovation, the impact of servitization strategy (Neeley, 2008) on business model innovation is analyzed. It is shown how different degrees of servitization imply different degrees of business model innovation and it is suggested that different configurations of business models are possible and can co-exist at both firm and industry level.

**Keywords:** *business model innovation; strategy; servitization; typology*

### 1. INTRODUCTION

In a recent interview, professor McGrath argues that there are three main reasons that explain the interest on business model innovation (BMI): the increasing speed of everything, the inter-industry competition and the disruptions from business models (BMs) that offer better customer experiences instead of simply products. BMI is considered as the new driver of competitive advantage (Casadesus-Masanell & Ricart, 2011; Chesbrough, 2010) and managers are favoring it (Amit and Zott, 2012) since it seems to be more profitable than product or process innovation. But what is business model innovation?

Most of the literature on BMs has focused on business model definition and BM components classification and have linked BMI with the emergence of new technologies (Doz and Kosonez, 2010; Gambardella and McGahan, 2010). However, a definition of what BMI is (Bock et al., 2012) as well as

how a clear framework of how BMI is linked to strategy, is still lacking. Academics have distinguished between BM and related concepts such as strategy and tactics (Baden-Fuller and Haefliger, 2013; Casadesus-Masanell and Zhu, 2010; Teece, 2010), but they have not distinguished between different degrees of BMI and how a change in strategy affects it. Henceforth, the aim of this paper is to clarify what a business model innovation is, how it can be classified and how a change in strategy requires different levels of business model innovation.

This paper contributes to the existing literature in three ways. First, the literature review presented complements Zott et al. (2011)'s literature review on BMs, (i) distinguishing between real-world vs. cognitive-world perspectives (Baden Fuller and Haefliger, 2013), (ii) summarizing the BMI main contributions and (iii) looking at how strategy and business model have been linked together. Second, it clarifies what BMI is, providing a typology of BMI. Finally it shows how strategy influences BMI, considering the servitization strategy (Neely, 2008; Vanderemewe and Rada, 1988), and it sheds light on how managers can choose between alternative business model configurations.

## 2. LITERATURE REVIEW

Since Peter Drucker's description of the business model as *"the answer to the questions: who is your customer, what does the customer value, and how do you deliver value at an appropriate cost?"* (Casadesus-Masanell and Ricart, 2011:5), the BM concept has received increasing attention by both practitioners and scholars. Zott et al. (2011)'s literature review highlights how, despite the three main silos in which research about business model has been developed, a business model tends to be considered as a unit of analysis, with the aim of describing how a firm works and how value is both created and captured. However, blurred boundaries are still present around the business model concept, its dimensions, its theoretical roots and its interplay with strategy.

I reviewed the literature on business model, considering publications between 2000 and 2014. In particular, I focused on publications since 2010 due to the fact that Zott et al. (2011) present an extensive literature review from January 1995 to December 2010. I looked at the Association of Business Schools (ABS)'s grade four journals, considering "General Management" and "Strategic Management" journals, namely *Academy of Management Journal*, *Academy of Management Review*, *Administrative Science Quarterly*, *Journal of Management*, *Journal of Management Studies*, *British Journal of Management* (I have excluded *Harvard Business Review* since it is more practitioner-oriented); and *Strategic Management Journal*. I also add to the former list other three ABS grade four journals due to their contributions to the topic on business models *Management Science*, *Organization Science* and *Research Policy*. Finally, I consider also *Long range Planning*, a ABS grade three "Strategic Management" area journal, since a Special Issue on business model was published in 2010). I used the ISI Web of



Science database using all these journals names as “Publication name” and selecting the years 2010-2014. A total of 3600 articles was found. Then I refine the results through the “search within results for...” option, considering again “business model\*” and a total of 178 articles were found. I filtered these papers, selecting those papers that used the term “business model” in a non-marginal way and I added to them the highest cited articles that were published before 2010 and after 2000. A total of 73 articles was found and used as the basis of the review.

Complementary to Zott et al. (2011)’s review of the literature, I find that an increasing interest is given to the view adopted by the authors when they use the term business model, the topics of business model innovation\dynamics, and finally the use of BM in strategic decision making processes.

### *2.1 Real-world vs. Cognitive-world*

In approaching BM literature every researcher should understand whether the paper under analysis uses the term BM from a “real world” or “cognitive world” perspective, since in the former case researchers use BM in order to explain “*what companies do*”, while in the second case researchers relate the BM to “*how companies see the world*”. (Baden-Fuller and Haefliger, 2013; Baden-Fuller and Mangematin, 2013; Bohnsack et al., 2014; McNamara et al., 2013).

The “what” perspective is empirically-driven and looks at the consequences of the adoption of one specific kind of BM over alternative ones. For example, Amit and Zott (2012:42) define BM as “*a bundle of specific activities – an activity system- conducted to satisfy the perceived needs of the market, along with the specification of which parties (a company or its partners) conduct which activities, and how these activities are linked to each other*”. Based on that, Amit and Zott (2001) and Zott and Amit (2007) present a taxonomy where distinguish between four business models designs, namely efficiency centered, novelty centered, complementary centered and lock-in centered business models, and link them to companies’ performance under different levels of industry munificence. In their model, the BM is considered an independent variable, moderated by environmental conditions. Bonaccorsi et al. (2006) define BM as “*the way products\services are sold to customers, cash is generated, and income is produced*” (p. 1086) and distinguish business models on the basis of their revenue model and value proposition (pure open-source companies and hybrid companies). On the other hand, researchers who look at “how” perspective, focus on the cognitive perspective of BM and look at its dimensions, rather than the consequences. Teece (2010:191) argues that a BM “*reflects management’s hypothesis about what customers want, how they want it and what they will pay, and how an enterprise can organize to best meet customer needs, and get paid well for doing so*”. Baden-Fuller and Haefliger (2013) define the BM as “*a system that solves the problem of identifying who is (or are) the customer(s), engaging with their needs, delivering satisfaction, and monetizing value*”. The authors reformulate the BM relationship with technology considering BM as a moderator between technology and performance, but also considering the choice of BM about

openness and user engagement as affecting the technology development. In this way, Baden-Fuller and Haefliger (2013) link the open innovation literature (Chesbrough, 2006) and the user-innovation literature (von Hippel, 2005) in a more clear manner to the BM literature. The two views differ in the use of the business model. Table 1 presents a summary.

	REAL-WORLD	COGNITIVE-WORLD
LOGIC	What company does	How company sees the world
CLASSIFICATION	Taxonomy	Typology
DEFINITION	Bottom up	Top down
FOCUS	Consequences	Dimensions
DRIVERS	Empirically-driven	Theoretically-driven
TECHNOLOGY	Inside the BM	Separate from the BM
TYPE OF VARIABLE	Independent variable	Moderator Independent variable
KEY PAPERS	Zott and Amit (2007)	Teece (2010) Baden-Fuller and Haefliger (2013)

**Table 1. Real-world and cognitive-world views (source: author)**

## 2.2 Business model innovation

A second topic that has deserved and is deserving more attention is business model innovation. *“Business model innovation has not been clearly defined in prior studies”* (Bock et al., 2012:290), but in practice it addresses new opportunities: *“business model innovation is perceived as a fundamental rethink of the firm’s value proposition in the context of new opportunities”* (Bock et al., 2012: 290).

The change in a BM, due to both external and internal factors (Bjorkdhal, 2009; Bohnsack et al., 2014; Bonaccorsi et al., 2006; Demil and Lecocq, 2010; Govindarajan and Trimble, 2011), has been analyzed at both industry and company levels. In the case of industry level, authors have analyzed how a ‘dominant’ BM has been threatened by the emergence of a new BM (often introduced by a new entrant): examples are from the software industry (Bonaccorsi et al., 2006; Suarez et al., 2013), the football industry (McNamara et al., 2010), the biotech industry (Mangematin et al., 2003), the movie industry (Gelfond, 2013). The new BM sometimes may change the evolution of the entire industry (Jacobides and Winter, 2012), as in the case of Google and Apple (Gambardella and McGahan, 2010). At firm level, authors have analyzed the (successful) BM of individual companies such as Arsenal FC (Demil and Lecocq, 2010), Naturhouse (Sosna et al., 2010), LEGO, Coloplast and IBM (Hienerth et al., 2011).

Most of the literature has focused on how BMI has often been enabled by the advent of new technologies. However, whether on the one hand technology innovation often needs BMI in order to be successful (Bjorkdahl, 2009; Chesbrough, 2010), on the other hand technology innovation does not necessary result in a new business model (Baden-Fuller and Haefliger, 2013; Teece, 2010). Baden Fuller and Haefliger (2013) make the examples of EasyJet and Amazon that only applied the well-known BM constructs of respectively Southwest Airlines and Sears and Roebuck in new contexts. Teece (2010)

points out that *“technological innovation often needs to be matched with business model innovation if the innovator is to capture value”* (p. 186). This is consistent with Baden-Fuller and Haefliger (2013) and Baden-Fuller and Morgan (2013)’s suggestions to look at the BM as a moderator between technology and performance. Also Chesbrough (2010) argues that technology *“remains latent until it is commercialized in some way via a business model”* (p. 354). But, if the use of a new technology for an old BM does not constitute a new business model, what does a BMI consist in?

Although the terms “business model innovation”, “new business model”, “change in the business model” or “business model evolution” are widely used, unexpectedly an explicit definition of what BMI is does not emerge, letting the reader to deduct it. In broad terms, the papers considered refer to BMI as the search for new logic of the firm and new ways that redefine the value proposition, how it is delivered and how value is captured (Casadesus-Masanell and Zhu, 2013; Velu and Stiles, 2013). Despite often the terms BMI and new BM have been used interchangeably, we should distinguish business model innovation (when BM changes one of its dimensions) from new business model (when a company develops a new type of business model, changing all the linkages within and between its dimensions): a new BM is a specific type of BMI since it represents what I name later a radical BMI.

### 2.3 Business model and strategy

Strategy is not the same of business model (Casadesus-Masanell and Ricart, 2010, 2011; Chesbrough and Rosebloom, 2002; Osterwalder and Pigneur, 2010; Teece, 2010; Zott et al., 2011). Chesbrough and Ronsenbloom (2002) identifies three elements that distinguish between BM and strategy: the predominance of value creation rather than value capture in business models, the creation of value for the shareholders rather than for only the business, and the assumptions on knowledge (limited and biased for the business model, reliable and analytical for strategy). Zott et al. (2011) stress that competition, value capture and competitive advantage belong to strategy sphere, while cooperation, partnership and joint value creation are emphasized by business models. Casadesus-Masanell and Ricart see the *“business model as a reflection of firm’s realized strategy”* (Casadesus-Masanell and Ricart, 2010:204), where the BM refers to the logic of the firm, while the strategy is the plan to *“create a unique and valuable position involving a distinctive set of activities”* (Casadesus-Masanell and Ricart, 2011:9). Similarly, Teece (2010) asserts that a BM is more generic of a business strategy and it might be considered as a complement.

How have been BM and strategy linked? According to the literature reviewed, three main topics (and sometimes a combination of them) have been looked at with respect to strategy and business model: the entry choice modes, the role of replication of BM in internationalization, and the choice of diversifying the value offering.

Most of the papers deals with entry choices. Using game theory, Casadesus-Masanell and Zhu (2010) analyze the optimal strategy of a high-quality incumbent that faces a low quality ad-sponsored competitor. The authors argue that the incumbent can compete either by adjusting the tactical variables, namely price or number of ads, or by changing the business model. Casadesus-Masanell and Llanes (2011) look at when a profit-maximizing company adopts a mixed-source business model. In this case, the strategic variable is about the openness of technologies, but also on the compatibility regime with competitors' products. In another paper, Casadesus-Masanell and Zhu (2013) analyze how entrants choose the BM (if traditional or new), based on their expectation about incumbents' reaction. What emerges is that entrants can chose to strategic conceal or strategic reveal their intentions, and the decision depends on the comparative quality between entrants or incumbent products. Bonaccorsi et al. (2006) analyze the entry strategies in the open source software industry.

Rooted in the knowledge-based view, Winter and Szulanski (2002) argue that replicators create values refining an existing BM *"by choosing the necessary components to replicate that model in suitable geographical locations, by developing capabilities to routinize knowledge transfer, and by maintaining the model in operation once it has been replicated"*. According to them, *"the business model (or formula) is typically a complex set of interdependent routines that is discovered, adjusted, and fine-tuned by 'doing'"* (Winter and Szulanski, 2002). Drawing on the replication as a strategy framework, Dunford et al. (2010) look at how BM is used when a company decides to internationalize. They identify four processes, namely clarification, localization, experimentation and co-option, that underline both BM change and internationalization. According to the authors, *"early and rapid internationalization may be sought through combining one or more of these modes with the use of a replication strategy, that is one where expansion into new countries is based on the repeated application of a specific business model"* (Dunford et al., 2010: 657).

Another bunch of papers refers to a diversification strategy. Suarez et al. (2013) look at how manufacturing firms, in this case the software producers, are introducing services in their value proposition, and how this choice affects the firm's performance. Bonaccorsi et al. (2006) conduct a survey on Italian open source companies and look at the strategies of software firms with respect to the open source, finding that software companies have chosen to combine proprietary and open source software under different license schemes.

From the literature reviewed, three main shortcomings are identified. First, BMI is treated as a 'one-fits-all' concept, where different degrees of BMI have not been distinguished. Second, BMI and new business models have been used as interchangeably terms, but there is a nuance between them. Finally, most of the articles about BM and strategy has looked at specific industries, such as the software industry, where a new technology (such the Internet\open source) has allowed new entrants to change the rules of the game and forced incumbents to react. However, the literature has only

considered specific components of the business model (such as the revenue model), neglecting how different business model innovations may arise from changing multiple components.

### 3. TOWARD A BUSINESS MODEL INNOVATION TYPOLOGY

The importance of distinguishing within different degrees of innovation has been largely addressed by literature on technology and innovation management, but it seems to be underdeveloped with respect to BMI. I adopt Henderson and Clark (1990)'s framework of technological change and extend it to business model. Based on the usefulness of the existing architectural and component knowledge of the firm, Anderson and Clark (1990) distinguish between radical innovation (new set of core components and new architecture), incremental innovation (refinement of the existing set of the core components and unchanged link between them), modular innovation (change of core design concepts only), and architectural innovation (change of the link between core concepts only). However, due to the fact that a BM involves also how the components are linked together, I consider the modular and the architectural BMI as part of the incremental BMI.

Whatever the perspective, if cognitive or real, literature focuses on BM as linking two main dimensions, namely the value creation and the value capture activities. For each of these two main dimensions, authors have provided multiple elements. Henceforth, we define a BMI as a change in the linkages within and between value creation and value capture elements: a company can decide to maintain the same BM (i.e. maintain the same value capture and value creation activities) or innovate it in an incremental (i.e. changing only the linkages within value creation activities, but maintain the existing value capture mechanisms or vice versa) or radical (i.e. changing both the linkages within and between the value creation and the value capture mechanisms) manner. The result is a two-by-two matrix (Table 2).

		VALUE CAPTURE	
		Existing	New
VALUE CREATION	Existing	No BMI	Incremental BMI
	New	Incremental BMI	Radical BMI

**Table 2. The BMI typology (source: author)**

It derives that *incremental business model innovation consists in changes in the link of either value creation or value capture activities while radical business model innovation consists in changes in the link of both value creation and value capture activities.*

To the purposes of this paper, I adopt Baden-Fuller and Haefliger (2013)'s BM dimensions for value creation and value capture activities since they go beyond Teece (2010)'s framework introducing the multiple-sides element, i.e. they account for the presence of multiple business models in the same company. According to them, a BM is made up by four dimensions, namely the customers

identification (who pays), the customer engagement (whether 'taxi' or 'bus'), the value chain linkages (integrated, hierarchy or networked), and the monetization (when, what and how is money raised). Henceforth, the boundaries of BMI are represented by these four dimensions.

In order to understand better the typology of BMI proposed and clarify the link between BM and strategy, I examine how adopting a servitization strategy (Vandermerwe and Rada, 1988; Neely, 2008) by a manufacturing company requires an incremental or radical BMI depending on the type of servitization strategy chosen.

#### 4. THE SERVITIZATION OF THE MANUFACTURING INDUSTRY

"Servitization" is a term coined by Vandermerwe and Rada (1988) for defining *"the offer of integrated packages of products, services, support, self-service and knowledge to add value at company's core businesses"*.

Despite many other definitions and synonyms have been provided (Baines et al., 2009; Barquet et al., 2013; Beuren et al., 2013; Maglio and Sphorer, 2008, 2013; Mathieu, 2001; Neely, 2008; Velamuri et al., 2011), to the purposes of this article, servitization is considered as a strategy that manufacturing companies could pursue, and consists in shifting a traditional product-based value proposition towards different levels of product-service systems (PSS).

Due to the several classifications provided about servitization options, there is a need to define our field. In broad terms, servitizing implies adding services to existing products. But, how can services be added to product at company level? At company level services can be seen as the business offer (a value proposition made up by pure service), as part of the business offer (a value proposition made up by both product and service) and as provided internally to the firm (services at the process level). Between the various classifications, Neely (2008)'s classification of servitization options is, to the best of my knowledge, the more complete. According to him, there are five options for servitization (Neely, 2008:108): integration oriented product-service system (going downstream by adding services through vertical integration; this option basically consists in products plus services - e.g. retail and distribution); product oriented product-service system (providing additional services related to the product; this option basically consists in products plus services that are integral to the product - e.g. maintenance and support services); service oriented product-service system (incorporating services into the product itself; in this case we have a coupled product and service - e.g. health usage monitoring systems); use oriented product-service system (in which ownership is retained by the service provider who sells the function of the product - e.g. sharing, pooling, and leasing); and result oriented product-service system (the product is replaced by a service - e.g. the voicemail service).

Due to the fact that a BM creates value for the customer, I adapt this classification excluding the integration oriented product-service system since it refers to the service at process level, creating value for the firm only. Table 3 provides the summary.

LEVEL	Business offer	SUB-LEVELS	NEELY (2008)'S CLASSIFICATION
		Pure Service	Result oriented Product-service system
		Product plus service	Use oriented Product-Service System
			Service oriented Product-Service System
	Process	Service provided internally	Product oriented Product-Service System

**Table 3. Classification of servitization strategies (source: author)**

Adopting one of the four servitization strategies considered requires a change in BM that can be incremental or radical. Using the typology on BMI proposed in the previous section, we classify the BMI required for each kind of servitization type.

In order to explain this classification, I create an example based on the car manufacturer ABC. For the sake of simplicity, suppose that the manufacturer sells one type of car (customer engagement = “bus”) directly without the need of retailers and produces and delivers the car by itself (value chain linkages = “hierarchy”). ABC decides to servitize and has to choose which type of servitization strategy adopt. Table 4 shows on the left side the different dimensions (on the basis of Baden-Fuller and Haefliger (2013)’s framework) with their broader options that a firm can choose, while on the upper side the four different strategies that can adopt. The cells are filled with the choices made (or whether the choices need to be defined is has been written TBD). ABC can choose between:

- 1) adopting a product oriented PSS, adding to the sale of the car the maintenance services or allowing the customer to personalize the car. In this case, the users is still the payer, but he can personalize the car and choose the level of optional services wanted. The manufacturer can make everything by itself or decide to outsourcing the provision of optional services.
- 2) adopting a service oriented PSS, integrating the service into the product. In this case the company integrates electronic devices in the car in order to provide instantaneous on the road information and/or instantaneous information about the car to third parties (such as insurance companies, police, etc.). In this latter case, the user still pays but alternative payers (e.g. police that wants to monitor traffic jams) can be found. Moreover, services can be customized. Hence, the manufacturer can change the value chain (for example allowing apps developers to join it). The result is that the monetization depends on the kind and level of services added to the car;
- 3) adopting a use oriented PSS. It implies that the company maintains the ownership of the car and give it to the customer through pooling, sharing or leasing contracts. In this case the manufacturer can adopt different monetization options (e.g. pay a monthly\annual fee or pay per hour). The customer

can choose between the type of contract, the features of the car, the modalities of 'picking up and delivery'. The manufacturer could consider the option of networking with third parties (such as BlaBlaCar, Carpooling.com, Zipcar) or dedicating an ad hoc business unit for that, rather than reconverting itself into a pure service provider (eliminating the manufacturing activity and becoming a carpooling\carsharing –service- company as Carpooling.com). Advertisers can pay. Money comes from use;

4) adopting a result oriented PSS. The customer benefits directly of the service, substituting the product. In the case of a manufacturing company, the company can offer a "hire with driver" solution. In this case, the user calls the company and the company provides a car with the driver who drives the car in place of the user. The user pays the travel (i.e. it pays for a service, not the use of a product as in the case of user oriented PSS or the ownership of the product, as in the case of product\service oriented PSS) and this service is tailored on the needs of the user.

		Traditional Product	Product oriented PSS	Service oriented PSS	Use oriented PSS	Result oriented PSS
Customer identification	User pays	X	X	X	X	X
	Other pays			X	X	
Customer engagement	Bus	X	TBD			
	Taxi		TBD	X	X	X
Value Chain Linkages	Hierarchy	X	TBD	TBD	TBD	X
	Network			TBD	TBD	
Monetization	Point of purchase	X	TBD	TBD		
	Point of use		TBD	TBD	X	X
	Fees		TBD	TBD	TBD	
BMI		No BMI	Incremental	Incremental	Incremental \Radical	Radical

Table 4. *An example of BMI for a car manufacturer* (source: author)

As shown in table 4, there are dimensions that tend to be fixed or change slightly, such as the customer identification that in all cases sees the user paying, although sometimes he can receive contributions from third parties. Other dimensions instead change more radically, such as the monetization and the customer engagement. What is interesting is that the value chain linkages present a very high level of flexibility in terms of choice. For simplicity I have just distinguished between the hierarchy and network structures, but more fine-grained classifications can be adopted. As shown, multiple combinations between the dimensions are possible (and managers may choose among different alternatives on the basis of their perceptions of the external environments and internal assets and capabilities), although choosing a result oriented PSS servitization strategy seems to result, at least from the previous example, in a more radical business model innovation, especially



because the value for the customer changes disruptively (he receives the services directly). This is supported also by other examples of result oriented PSS such as Xerox' document management and Roll-Royce's power by the hour (Baines et al., 2009), that have represented new (successful) business models.

## 5. CONCLUSION AND FURTHER RESEARCH

My main argument in this paper is that literature has missed to distinguish within different degrees of business model innovation (BMI) and has not clearly shown how a change in strategy implies a BMI. I suggest that, as well as other concepts in the technology and innovation management literature, BMI can be either incremental or radical. This typology has been linked with Baden-Fuller and Haefliger (2013)'s BM dimensions in order to set the boundaries within which a BMI can occur.

In order to clarify the role of strategy with respect to business model, I have analyzed the servitization strategy showing how different degrees of servitization require different degrees of business model innovation. What emerges is that companies can choose between different configurations (Drazin and van de Ven, 1985) of business models also within the same servitization strategy. Moreover, as well as within the same industry companies can servitize in different ways, a company may also choose to pursue simultaneously different business models within the servitization option chosen or pursue multiple business models choosing to adopt more servitization strategies. Further research is needed in order to understand whether certain configurations are more viable than others and under what conditions. I suggest that different theories can be helpful in order to understand the co-existence of multiple business models within an industry and within the same company. In the first case (McNamara et al., 2013), institutional theory (Di Maggio and Powell, 1983) and the concept of isomorphism can help in order to see how companies are imitating a specific business model. At company level, an interesting path of research may be linked to the ambidexterity literature. In a recent paper, Markides (2013) identifies spatial separation, temporal separation, and contextual ambidexterity as possible solutions to manage multiple business models within the same company. I suggest that further research is needed in this direction.

Moreover, preliminary empirical surveys on the impact of servitization strategy on businesses' performance have shown a paradox (Fang et al., 2008; Neely, 2008), synthesized as the fact that *"substantial investment in extending the service business leads to increased service offerings and higher costs, but does not generate the expected correspondingly higher returns"* (Gebauer et al., 2005) or *"why are servitized firms generating higher revenues but delivering lower profits than pure manufacturing firms"* (Neeley, 2008). A U-shaped relationship has been arisen in recent empirical studies on servitization and performance (Suarez et al., 2013; Visnjic and van Looy, 2013). Despite the performance of

servitized firms seems to be highly contingent on the industry, the nature and the size of the service portfolio (Visnjic and van Looy, 2013), I think that accounting for different levels of business model innovation and hence different business model configurations (i.e. considering the business model as moderator as Baden-Fuller and Haefliger (2013) suggest), can shed light on the servitization paradox. Finally, further evidences are needed on the capabilities required by manufacturing firms for successfully shifting towards more service-oriented business models.

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## STUDY ON CONSUMERS' BEHAVIOR CONCERNING BERRIES CONSUMPTION IN ITALY

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### ABSTRACT

In Italy, the cultivated land of berries shows a positive trend, nevertheless berries still remain a productive segment of niche and luxury in the Italian agri-food system. In the world, the interest for these productions is high for their healthy aspects that have a strong appeal to the consumers. The objectives of this study are to know the consumers behavior of berries and the determinants of purchase in Italy in order to improve the management of the producing and retailers companies for increase the competitiveness of the supply chain. The results obtained through a multivariate analysis show some difference among the consumers interviewed. The most important results of this study is that good taste and flavor and nutritional properties are the most important motivation to buy berries as fresh fruit. Among the three geographical Italian macro-regions (Northern, Central and Southern) have not been revealed relevant differences. These are related mainly to the type of fruit consumed, the place and frequency of purchase. Furthermore, consumers living in big capitals, compared to those living in the small cities, can easily find berries at supermarket and consider label a very important element for traceability of product. Moreover, they usually buy berries for special occasions as fresh fruits or to prepare particular dishes. Several implication both for companies and Institution have been identified.

### INTRODUCTION

We define "Berries" a small group of species within the genus *Rubus*, *Ribes* and *Vaccinium* that are grown in recent years in different sites of the world because of the strong demand of the agri-food, pharmaceutical and cosmetic industries (Crescimanno et al., 2013). In Italy, the cultivated land of berries, in the most recent official statistics, amounted to 402 hectares with a production of 27,900 tons (72% are raspberries), and recording, compared to 2005, an increase of 49.5% for cultivated land and of 28.2% for the quantities obtained (ISTAT, 2010). These numbers, however, make that berries still remain a productive segment of niche and luxury in the Italian agri-food system, that recently are present also in protected cultivation. This is a good opportunity for some areas of Southern Italy to enhance marginal areas not usable for agricultural purposes. The limited quantities produced make

Italy a country strongly importer (especially during non-production period) as shows the trade balance data for 2012 that is negative both in terms of quantity (-30,335 tons) and value (-62.7 million euro) (INEA, 2012).

In the global context, Blueberries, Cranberries, Raspberries, as a whole, reach a production value of \$2.6 billion with a production of 1.5 million tons. Among the major world producers there are US, Canada, Poland and Russian; in particular, US and Canada are the world leading exporters of blueberries (FAOSTAT, 2012). The interest shown by the world market to the cultivation of berries is due in particular to the specific health properties of exceptional importance that these fruits contain, to varying degrees depending on the species. The healthy aspects of berries have a strong appeal to the consumer; for example, James et al. (2002) argue that the intense colors of this products are associated with substances undisputed preventive value against some diseases of our time, such as cardiovascular diseases, stroke, cancer, and the color is one of the characteristics that the consumer takes into consideration when choosing of Fruits and Vegetables (F&V) consumption. In the cranberry industry e.g. growers are paid by the tonnage of product modified by the quality, that is partially determinate by the color and the pigment content that increases the coloring of the fruit; so the growers would like harvest early to reduce risk of frost but the processor later to increase pigment content (Francis, 1995). In the light of the healthy properties of berries are added to the indications of the World Health Organization (WHO) that for several years has put together an information campaign on the benefits of F&V consumption of the recommended intake of a minimum of 400g/day for the prevention of chronic disease, cancer, diabetes and obesity, as well as for the prevention and alleviation of several micronutrient deficiencies, especially in less developed countries (World Health Organization, 2004). To improve F&V consumption in populations, many countries have developed and adopted a variety of healthy policies and intervention; among all China, USA, Canada, Australia (Yang Li et al., 2011), and in the American urban new forms of community gardening (Alaimo et al., 2008).

Many studies have been conducted to understand the consumers behavior of food products and in particular of F&V consumption, but there aren't study about the berries consumption, particularly in Italy. In this scenario, the aim of the paper is to identify the main intrinsic and extrinsic attributes affecting berries' consumption in Italy, and also to analyze which differences emerge among Italian geographical macro-areas (Northern, Central and Southern) and between big and small capitals regions ( $\geq 200,000$  and  $< 200,000$  residents, respectively). The first hypothesis of this study is that consumers are driven mainly by intrinsic attributes in their choice (taste, flavour, nutritional properties) and that this behavior is more marked in the Northern regions. Our second hypothesis is

that in the big city consumers show more attention to the products traceability, indeed and they buy berries mainly in the large scale retail trade.

To achieve the aim we did a telephone survey to 200 consumers of berries residents in the 20 Italian regional capitals. Results of this survey have been analyzed through a multivariate statistical analysis (cluster analysis) in order to identify the main factors influencing consumers behavior. The variables that we studied in our work are intrinsic, like the taste, the color of the fruit, the health properties, and extrinsic properties, such as price and the traceability (or origin). Others variables concerning the choice of the place of purchase, the mainly occasions and modalities of consumption (fresh or prepared).

This paper after the introduction follows with the Literature Review on F&V and berries behavior consumption, with the methodologies of the work and the results of the analysis; the conclusions close the work.

## LITERATURE REVIEW

Many variables like personal characteristics can play an important role in explaining fruit consumption, as life experience or socio-demographic variables, and they are significant determinants of behavior (Guillaumie et al., 2010).

Translating these statements in the F&V consumption, Menozzi and Mora (2012) argued that there are differences between countries, because the Southern European countries show a higher consumption of fruits and vegetables compared to those of Northern Europe, or between gender and age, because women consume more fruit than males and older people consume more fruits of the younger. Other Authors, in addition, explain the relationship between fruit consumption and life style as physical activity (Menozzi and Mora, 2012).

Stark Casagrande and Gary-Webb (2010), studied the trends of F&V consumption in the U.S. in relation to the suggestion which have been given in recent years by the WHO, combined with other factors. They argue that a lack of improvement in F&V consumption can be attributed to a variety of factors. First food preferences and cultural backgrounds, second environmental barriers, and then that the price of snack and unhealthy foods are relatively cheap compared to the fresh ones. Furthermore the advertising for F&V is less than for nutritionally poor food.

By getting more into the heart of the debate, the literature is rich in contributions that emphasize the consumption of goods that are relevant to their intrinsic and extrinsic characteristics. In particular, on the consumption of fresh fruit there is a specific literature and in particular the concept of quality has been deeply analyzed; Espejel et al. (2007) argued that the concept of product quality can be analyzed under two main different perspectives: the objective and the perceived (subjective) quality.

Many authors and among them, Oude Ophuis and Van Trijp (1995) and Steenkamp (1997) think it is pertinent to classify the subjective quality into two groups that drive the consumer to evaluate the intrinsic (e.g. color, flavor, form, appearance) and extrinsic attributes (e.g. brand name, country of origin price, packaging and production information) of the products (Bernues et al., 2003). We think that, in the case of berries, it will be ever more important, among intrinsic attributes, the healthy properties of the products and that this attribute is the most important lever in the world market of berries. Berries are important dietary sources of fiber and essential vitamins and mineral (Schnettler et al., 2011); among them blueberries are an excellent source of phytochemicals in fact they are believed to have significant biological activity (Schmidt, 2005), and also in vitro of *Vaccinium* genus, berries were found antioxidant and anti-carcinogenic (Rimando, 2004). So one of the major reason for the blueberry increasing popularity in the human diet is their higher antioxidant capacity among berry fruits (Seeram et al., 2006).

Regarding the others intrinsic attributes, color among the appearance, is one of the major attributes which affect the consumer perception of quality. In particular, as argued James et al. (2002) to the intense colors of berries are associated substances with preventive value against some diseases of our time, such as cardio-circulatory diseases, ictus, cancer. Furthermore color function in several ways is considered an indicator of freshness (Francis, 1995). In relation to freshness, a survey conducted in the European Community countries showed that the primary factor influencing food choice of European consumers was quality/freshness (Péneau et al., 2006), according to a survey carried out in Germany with more than 2000 consumers: freshness was the most important criterion takes into account when buying a fruit or vegetable (AgV, 1981). These factors are very important because the berries present a very short shelf life (around 3 days) and this could be a strong limitation for the fresh fruits market.

Among the extrinsic attribute Espejuel (2007) suggests that these among the consumer's behaviors can play a role in presence of Protected Denomination of Origin (PDO), because the intrinsic attributes are guaranteed by the rigorous quality control by the Regulatory Councils of PDO; we think that in all other cases they could be decisive as the intrinsic attribute.

The price of the products could have an important role in the consumer behavior, in particular for low-income populations (Williams et al., 2012), and many studies carried out the role of the price in the consumption survey (Campbell et al., 2004; Onwezen and Bartels, 2011), or the opinion of consumers on the cost of fresh F&V (Chen et al., 2014). In relation to other extrinsic attributes packaging e.g. has not been considered in our study, because, now, there are few solutions to packaging berries, considering the characteristics of the products; but we agree with Koutsimanis et al. (2012), which think that packaging is constantly being developed and updated to meet changing consumer demands. Regarding trays labeled (e.g. producer and country of origin), study carried out



on this aspects Papanagiotou et al. (2013) and Font et al. (2011), show that product origin is one of the attributes that has a strong influence on consumer choice, in fact it represents a guarantee of product quality.

It is very interesting, for fresh fruits, their easy way to process into juice or jams that has considerably expanded its consumption. We think in agree with Ragaert et al. (2004) that a wide assortment of minimally processed vegetables and fruits has been developed to meet consumer to benefit from F&V benefit healthy image.

## MATERIALS AND METHODS

### Sampling scheme and survey

The reference Population, for this pilot survey, is the number of residents in the 20 Italian regional capitals, with age between 20 and 80 years, that is  $N = 7.062.958$  (ISTAT, 2012). The calculated sample dimension is  $n = 200$ , with  $p = 95\%$  and  $\varepsilon = 7\%$ . Since this Population is divided into homogenous strata (regional capitals), with a low variability inside, the *Stratified-proportional* sampling scheme was applied. Because of the different Population size of each capital, 20 sub-samples of a calculated dimension proportional to each stratum of the Population were created (Vianelli and Ingrassia, 2011). Table 1 shows Population size and calculated sub-samples size for each stratum. Extraction of units (respondents) from each stratum was made by random procedure (Cicchitelli, 2012), using telephone directories of each regional capital. In this study, to reach 200 consumers of berries we have carried 506 telephone interviews.

Table 1. Reference population and sample of survey

Regional Capitals	Resident population (No)	Sub-sample sizes (No)	Italian geographical macro-regions	Capital size
Torino	671,995	19	Northern	Big
Aosta	25,980	1	Northern	Small
Genova	447,758	13	Northern	Big
Milano	950,791	27	Northern	Big
Trento	85,397	2	Northern	Small
Venezia	199,982	6	Northern	Small
Trieste	155,191	4	Northern	Small
Bologna	285,947	8	Northern	Big
Ancona	75,989	2	Central	Small
Firenze	272,444	8	Central	Big
Perugia	123,096	3	Central	Small
Roma	2,005,303	58	Central	Big

Napoli	712,180	20	Southern	Big
Chieti	39,877	1	Southern	Small
Campobasso	37,356	1	Southern	Small
Bari	242,338	7	Southern	Big
Potenza	51,839	1	Southern	Small
Catanzaro	68,124	2	Southern	Small
Palermo	492,073	14	Southern	Big
Cagliari	119,298	3	Southern	Small
<b>Total</b>	<b>7,062,958</b>	<b>200</b>		

For the telephone interviews it was used a questionnaire properly created for this survey and divided into two parts. The first one contains questions about respondents' socio-demographic characteristics and consumers behavior (age, gender, job profession, possibility to buy fresh fruit or processed into fresh-cut, points of purchase). After these questions it was asked to respondents if they consumed berries: only those who answered affirmatively would continue the questionnaire. In the second part it was asked to respondents to give an order of preference (from 1, as the first, to 18, as the last) to 18 qualitative variables describing both intrinsic qualities attributes of berries (commodity and sensory aspects), extrinsic attributes and other variables (Table 2). Preferences had to be given by consumers according to their motivations for buying and consuming berries (what do you take into consideration when you choose berries).

Table 2. Variables utilized in the Cluster analysis

N.	Variables' description	Label
1	Quality/price ratio	Good _price
2	Flavor and taste	Good _taste
3	Visual appearance (color, shape)	Good _shape
4	Benefic nutritional properties (vitamin C, anthocyanin, antioxidants)	Nutritional _properties
5	Possibility to choose among different types (raspberries, blueberries, currants, strawberries, blackberries)	Different _types
6	Trays labeled with information on quality traceability (date of decay, producer, Country of origin, distributor)	Labelled
7	Easy to find	Easy _to _find
8	Place of purchase: supermarket	Buy _at _Supermarket
9	Place of purchase: fruit and vegetables shop	Buy _Fruit shops
10	Place of purchase: local market	Buy _Fruit markets

11	Place of purchase: short-chain (Km 0)	Km0
12	Used to make sweets, desserts or ice cream	Use _for _sweets
13	Used for preparation of dishes (side dishes, seal plates)	Use _for _dishes
14	Eat as fresh fruit	Use _ Fresh fruits
15	Very decorative	Very _decorative
16	Used as a fruit to be offered at lunch or dinner with family and friends	Offered _at _meals
17	Suitable for special occasions and celebrations (Christmas, New Year, Easter, anniversaries, birthdays)	Special _occasions
18	Used to make yogurt, smoothies, jams etc.	Use_for_yogurt_mousse

### Clustering Methodology

Cluster Analysis<sup>1</sup> is the multivariate statistical method more suitable for the objective of this research (Mueller and Hamm, 2014; Fabbris, 1997; Heiser and Meulman, 1995). This analysis, as it is known, is used when faced with the problem of creating relatively homogeneous groups in a set of variables. It is a multivariate analysis technique through which it is possible to combine statistical data, so as to minimize the distance between data inside groups and between groups. This distance is quantified by measures of similarity/dissimilarity between the data. Cluster Analysis puts together elements of a certain set into groups (clusters) that are non-predefined before, in order to have, in each cluster, units as homogeneous as possible (elements belonging to different groups are, thus, heterogeneous). So the Clustering, unlike other techniques of analysis, highlights sets of homogeneous groups which can be obtained in absence of knowledge about shape and number of them. Several methods are used to calculate the distance between two or more variables. The *Euclidean distance* method is often applied for Hierarchical Clustering (Beale, 1969) with the standardizing of variables to have comparable values and distances (in case of different units of measurement). For this analysis the *Average Linkage Hierarchical Clustering* resulted the more appropriate and the *Euclidean distance Method*, with the *non-determined* number of clusters, was chosen (all variables are in the same scale of measurement, so standardizing is not required). The *Dendrogram* shows each stage of the agglomeration and levels of aggregation with increasing order (vertical lines are the links of clusters, the positions of those lines, in the scale of reference, show different levels of hierarchical aggregations from the most homogeneous to the less one). In addition, *Agglomeration program* Tables were used to compare coefficients of homogeneity. It was built a matrix ( $m \times n$ ) with rates given to the 18 variables from the 200 respondents. For the market segmentation (Farley et al., 1987; Wedel and Kamakura, 2000) clustering was made with data collected from all the regional capitals considered. Also, Cluster Analysis was made splitting the data-set into parts, in order to compare regional capitals according to: (1) the Italian

<sup>1</sup> Statistic Software SPSS.

geographic zones, which are: Northern Italy, Central Italy and Southern Italy (ISTAT disaggregation); (2) the demographic population's dimensions, considering big capitals with resident population > or equal to 200.000 and small capitals with resident population < 200.000. So it was possible to have a market segmentation basing on different consumer profiles and purchase behaviors (Table 2).

## RESULTS AND DISCUSSION

### Consumers profile

The socio-economic characteristics of the consumers contacted by telephone are shown in table 3. The sample consisted of women with 67.82%, and men with 32.18%. The most of the respondents have an age between 45 and 64 years (42.57%), follows the range 25-44 years (31.68%), more than 64 years (21.29%) and finally the range 20-24 years with only 4.46% (Tab.3). People younger than 20 years were not selected for the telephone interviews.

With regard to employment, the 39.60% is employee, the 23.27% is retired, the 16.34% is self employed, the 13.37% is housewives and 1.49% is unemployed (Tab. 3). 40.59% of respondents are located in Northern Italy, 35.15% in the Central and 24.26% in the Southern regions. The respondents consume fresh fruit mainly after lunch/dinner (64.36%), and after dinner (23.76%), and less frequently only after lunch (2.48% ) and between meals (9.41%). With regard to berries, the majority of respondents (87.13%) say they do not eat frozen berries but prefer fresh fruit. Among the species, results show an high consumption of blueberries (24.41%), blackberries (21.34%), raspberries (20.83%), wild strawberry (12.62%), red currant (10.85%) and white currant (9,95%).

Tab. 3. Socio-economic characteristics of the interviewed (%)

Sample (n=200)		
Gender	Male	32.18
	Female	67.82
Age (Year)	20-24	4.46
	25-44	31.68
	45-64	42.57
	More than 64	21.29
Occupation	Housewife	13.37
	Employee	39.60
	Retired	23.27
	Self employed	16.34
	Unemployed	1.49
	Other	5.93
Distribution	Northern Italy	40.59

Central Italy	35.15
Southern Italy	24.26

Source: Our elaboration on survey data.

81.68% of respondents say they consume berries only in seasons of production, 11.39% throughout the year and 6.93% on special occasions (parties, dinners with friends, etc.). With regard to the frequency of purchase, 59.90% of respondents claimed to buy berries on a monthly/yearly basis, 40.10% daily/weekly. 61.88% said to prefer consuming mixed berries and 38.12 % of one typology. With regard to the place of purchase, 70.79% of respondents claimed to buy berries in supermarkets and hypermarkets, 15.84% in the local market and 12.38% in the specialist retailer. Only 0.99% buy through direct sales between producers and consumers.

Compared with the overall national trend, the main differences between the Northern and the Southern regions concerning the consumption of particular products. In these last regions, in fact, higher is the consumption of wild strawberries (14.38%) than in the Northern regions (9.77%). In contrast, in the Northern regions there is a higher consumption of raspberries (23.37%) compared to the Southern regions (16.52%), where there is also a high consumption of blackberries, thanks to the possibility to find it spontaneous. Another important difference concerns the frequency of purchase of berries that are higher in Northern Italy (56.1% of purchased weekly and monthly) compared to the regions of the Center and South where prevailing monthly and annually purchase (85.71%). Another difference among the three geographical areas is relative to the preference to consume mixture of berries or single types of this fruits. Indeed, in the Northern and Central areas prevails the consume of a mixture, while in the Southern regions the people prefer to consume only one typology of berries.

### Cluster analysis

Cluster Analysis grouped variables together basing on consumers scale of judgments, given according to their personal opinion on this produce. Consumers gave priorities (first places) to variables that they estimated as the most important ones, so that scores and logical associations resulted very similar/homogeneous like, also, in the case they evaluated the less important ones (lower positions).

Results revealed groups of homogeneous variables according to consumer's motivations for purchasing berries and choices for consumption. The best selling places where to find berries more easily and the main use consumers do of these fruits were grouped. From the first general clustering, three very big clusters' groups can be seen by the Dendrogram (Fig. 1). In particular, the Dendrogram shows the hierarchies gradually generated by the clustering process; the Agglomeration program (Table 4) shows the homogeneity coefficients.

According to consumers' preferences (statistics of scores frequencies for each variable have been omitted for reasons of printing) the most important motivations for buying berries are produce intrinsic qualities attributes, such as: good taste and flavor, good shape, benefic properties. Variables

belonging to group "Place" had lower positions, it means that special occasions, meals with friends or celebrations are not the main motivation for them to buy berries; sometimes the ease of finding becomes relevant. The lowest places were given to variables "Price", good quality/price ratio and possibility of finding the product through the short chain, it means that consumers think that berries are expensive fruits and it is difficult to find them through the so called short-chain (Km 0), which could, instead, be a means to buy food products at a lower price. The analysis by geographical zones show some differences in the judgments of the respondents, in relation to variables analyzed; however, these differences were not particularly high.

It resulted also, a greater ease of retrieval of the product in the North, on the contrary, in Southern Italy (Fig. 2 and 3) consumers have more difficulty in finding the product on the market, therefore preferring to use of this product on special occasions for the preparation of dishes, sweets or desserts or just as a fresh fruit, as they are very decorative.

Fig. 1 – Dendrogram (Average linkage between groups)

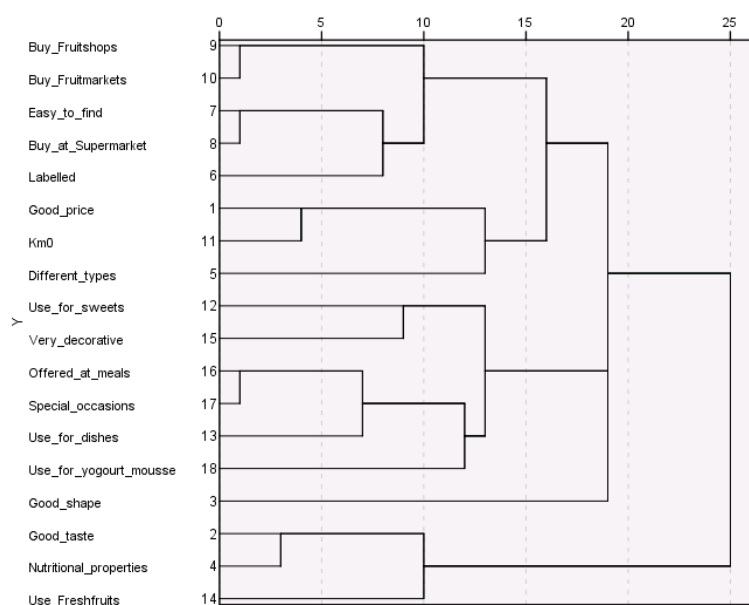


Table 4 – Agglomeration Program (Average linkage between groups)

Stadium	Linked clusters		Coefficients
	Cluster 1	Cluster 2	
1	9	10	42.591
2	7	8	42.895
3	16	17	44.362
4	2	4	51.971
5	1	11	54.369

6	13	16	64.080
7	6	7	67.542
8	12	15	69.921
9	6	9	74.032
10	2	14	74.785
11	13	18	79.710
12	12	13	83.084
13	1	5	84.756
14	1	6	93.920
15	3	12	102.814
16	1	3	104.378
17	1	2	125.181

Fig. 2 – Dendrogram for geographic zone – Northern Italy (Average linkage between groups)

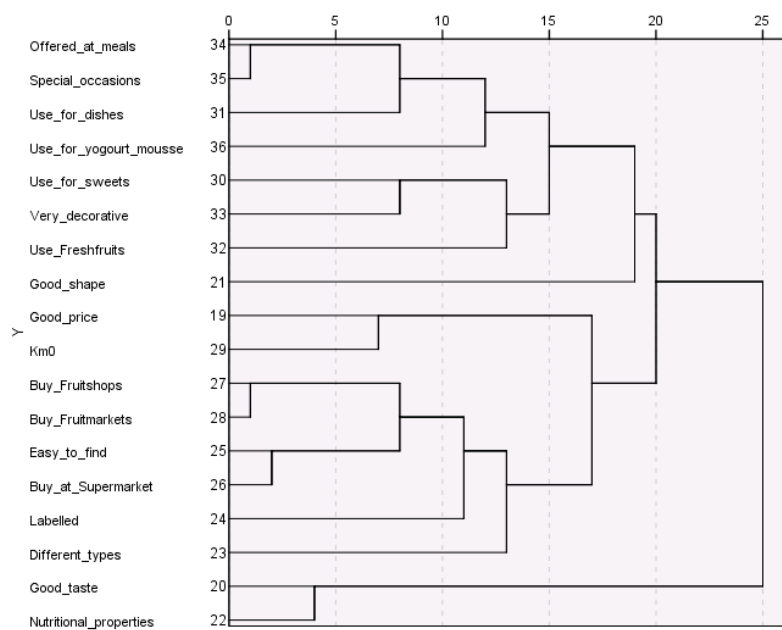
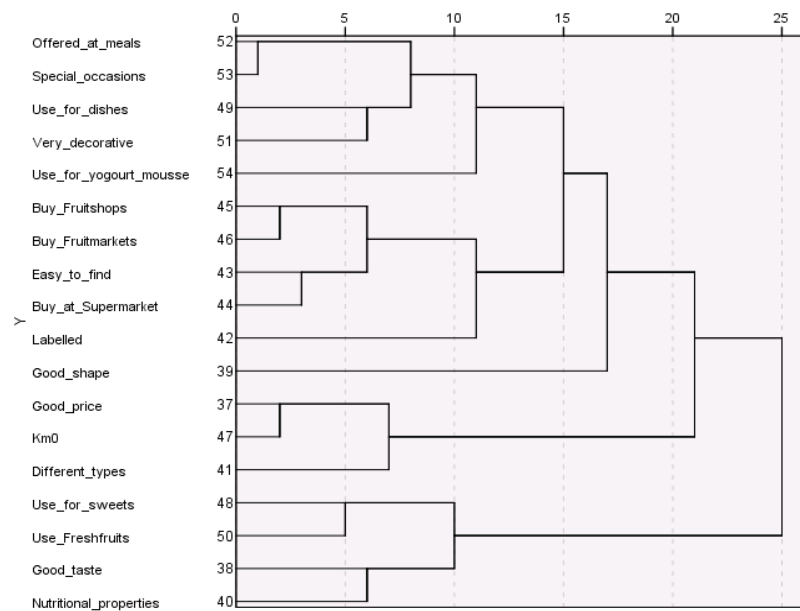
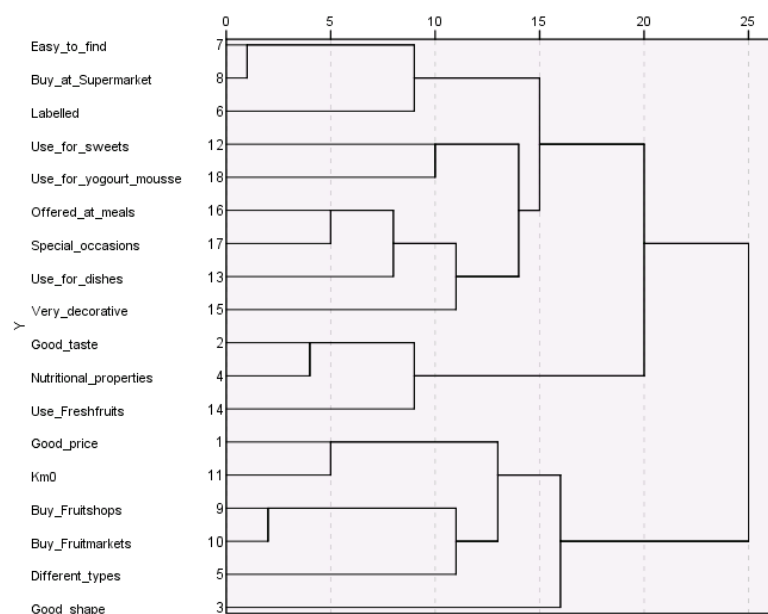


Fig. 3 – Dendrogram for geographic zone – Southern Italy (Average linkage between groups)



In Central Italy (Fig. 4) consumers seem to make a greater use of berries for preparing dishes. In all cases consumers said they like these fruits and think they are very healthy.

Fig. 4 – Dendrogram for demographic size – Central Italy (Average linkage between groups)



Finally, from the analysis by regional capital sizes it was highlighted an interesting difference in consumer's behaviors (Fig. 5 and 6).

Fig. 5 – Dendrogram for demographic size – Big capital (Average linkage between groups)



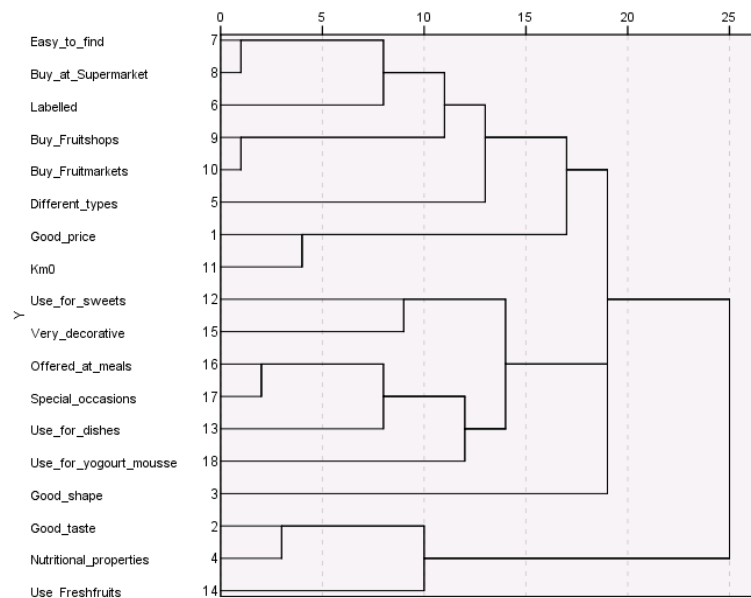
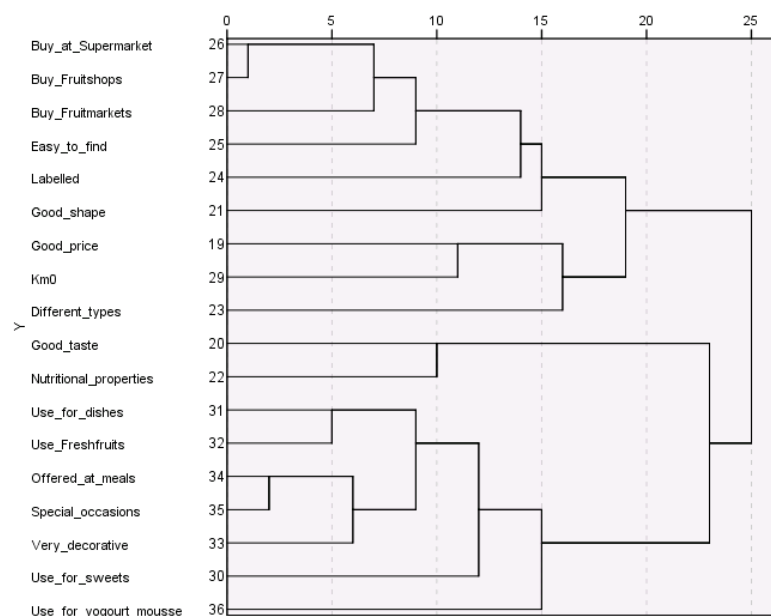


Fig. 6 – Dendrogram for demographic size – Small capital (Average linkage between groups)



It resulted that consumers living in big capitals can easily find berries at supermarket and consider labeling a very important element for traceability of product; moreover they usually buy berries for special occasions as fresh fruits or to prepare dishes. Good taste and nutritional properties are the most important motivation for buying berries as fresh fruit. Consumers living in small capitals do not find differences in buying berries at supermarkets or at fruit-shops or fruit markets, so label become less important for them. They use to consume berries not only for special occasions, as fresh fruits because berries are "very decorative", but also as any other kind of food like ice creams, sweets, yogurts, mousse, etc.. Good taste and nutraceutical properties are relevant but haven't the same

importance than for residents in big capitals, it may be, also, because most part of small capitals are natural producers of berries, so consumers residents in these cities are used to eat these fruits.

## CONCLUSIONS

The objectives of this study are to know the consumers behavior of berries and the determinants of purchase in Italy in order to improve the management of the producing and retailers companies for increase the competitiveness of the supply chain.

According to the first hypothesis of our study, the results show that intrinsic attributes of the berries as taste, color and health properties, are the most important lever to purchase, while the price of this products (extrinsic attribute) is the lowest factor. As suggested by Benjamin et al. (2004) and Francis (1995), color is an attribute that is typically important to consumers when they purchase fruit. This is even more true for berries because as argued James et al. (2002) the intense color of berries is associated with the presence of substances that possess preventive value against some diseases of our time. Regarding the nutraceutical properties, the results of our study indicate that the health aspect is important but that it isn't the best, probably, because like other survey carried out by Schnettler et al. (2011) has shown, among consumers the knowledge of the nutritional characteristics of berries is very lack. However, among consumer's behavior some differences emerge with regard to the results of the interviews in the three geographical Italian areas, concerning the place of purchase and the ease of finding the product in the market. In particular, the consumers who live in North Italy, find more easily berries in the large scale retail trade and for this reason the frequency of purchase is greater than in the other areas and the results of cluster analysis remark this information. In the Southern Italy we can note that the consumers have more difficulty in finding the product on the market; in this area, more than in other two, the role of the specialized retail is important enough. The cluster analysis evidences the link between the variables that indicate that berries is used to special occasions and offered to friends or family for convivial meetings.

The results obtained by cluster elaboration data, show that the consumers living in big city are more attracted by the information on the products' traceability (labelled); indeed, they purchase berries mainly in the large scale retail trade. This results confirm our second hypothesis, according to which consumers in the big city are very careful to the informations about the products and buy berries mainly in the large distribution channels. On the contrary, in the small city, that are localized in many berries production areas', consumers behavior is different and lower linked to the benefit aspects.

Regarding the main limitations of this study we think that these are linked to the sample size and its localization among regional capitals only. However, our findings offer valuable insight both for producers and retailers, to identify the main priorities and improving managerial strategies, and for

Institutions, in order to define effective measures for the enhancement of the production chains. Taking into account that most of the domestic demand is met by imported product, we recognized real opportunities for the berries sector' growth in Italy, through an increase of the harvested area and for the development of the entire supply chain. In particular, the results of our study show a great attention of consumers towards the taste and nutraceutical properties of the berries, that we can be consumed fresh or prepared, but that is not easy to find in some Italian regions. Therefore, we suggest that both the companies and the Institutions carry out promotional and informational campaign in particular concerning the nutraceutical properties and the advantage for health. With this in mind, this strategy could help to increase the domestic demand and therefore the main presence of the product in the different distribution channels, even in those areas in which nowadays is less straightforward find the product (Southern Italy). Furthermore, considering that among the consumers there are differences on the types of product purchased (mixture of berries and single type), in particular between Northern and Southern consumers, companies could expand their product line, offering packages with a single type of berries, mixture of fruits, and different size of package in order to reach different segments of consumers. It would be advisable in the future to carry out similar research in other places, not only in the capital regions, to confirm or disconfirm the hypothesis formulated and to identify the life style's influence, through the analysis of main socio-demographic characteristics, on the berries consumption in Italy. Everything, could contribute to improve the knowledge on the consumers' motivation and intention and to create a stable market of berries in Italy.

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## HOW TRANSACTION COSTS AFFECT THE SALES CHANNEL CHOICE: AN EMPIRICAL RESEARCH IN THE SICILIAN ORNAMENTAL PLANT SECTOR

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### ABSTRACT

This paper, based on transaction costs theory, represents a contribution to the existing literature, and a first step towards a more in depth study, aimed to identify the more important transaction costs able to influence the strategic choices of firms. In particular, this approach has been used to evaluate, through a telephone survey, the influence of transaction costs on the sale channels choice made by a small sample of Sicilian firms active in the Ornamental Plants economic sub-sector. Results show that transaction costs increase moving from direct sale to the sale to wholesalers and large scale retail (LSR) channels, confirming our starting hypothesis. In particular, information and negotiation costs are higher for those firms that sell to intermediaries and/or LSR. For this last channel results show the relevance of monitoring costs too. Our results have implications on the organizational model of firms and on the opportunity that a cooperative model is able to offer also in this economic sub-sector.

**Keywords:** *Transaction costs, Sale channels, Organizational models, Ornamental plants sector*

### INTRODUCTION

During the last few decades, the process of market globalization has led to patterns of consumption and production more similar and convergent, fueling fierce competition between companies. In particular, the entry in the international market of agricultural commodities and food products produced by emerging countries, e.g. Brazil, Argentina, Indonesia and New Zealand (De Filippis, ed., 2012), characterized by a high endowment of natural resources and low production costs, has led to a redefinition of business models in order to compete in the domestic and international market. Consequently, traditional food producers have adopted differentiation strategies aimed at maintaining character of distinctiveness and uniqueness of some agri-food products. The Italian experience in the agri-food sector shows the effective potential of these strategies that have allowed to the "Made in Italy" products to be more and more appreciated worldwide. Alongside to this approach, many other companies, especially in emerging countries, have adopted strategies of

competition based on the quality/price ratio, supported by a strong comparative advantage linked to the low production costs.

In this composite scenario the survival of companies in the market is also linked to their ability to reduce or contain the sum of production and transaction costs. However, if on one hand, reducing production costs is not so easy, taking into account the exponential increase of the price of raw materials and energy costs, on the other hand, companies are more likely to optimize transaction costs related to organization of economic activities and in particular to exchange relationships. Transaction costs, as referred by Kyeyamwa et al. (2008), can be significant deterrent to market participation especially for small firms characterized by insufficient resources so much to make, as reveals Royer (2011), not economically sustainable some transactions; consequently, the amount of transaction costs can make a sale channel preferable than another ones.

Despite their importance, transaction costs have still received little attention in the analysis of those factors influencing the strategic decisions from companies that operate in the agri-food sector. This study helps to fill this gap, proposing an analysis on the influence of transaction costs in the choice of sale channels made by a small sample of Sicilian firms active in the Ornamental Plants sector. The interest of such analysis starts from the consideration that, apart from production costs, there are other factors influencing the market competitiveness of firms.

Ornamental Plants is, in fact, one of the sub-sector of the Sicilian agriculture that, even in an economic downturn like the current one, has recorded a positive performance. Its contribution in the agricultural sector amounted to 5.7% in 2012 (INEA, 2013), and it assumes more importance considering that the same wealth is produced only from 0.4% of the companies operating in the whole sector (ISTAT, 2012). Moreover, it represents one of the Sicilian agri-food sub-sectors that shows a positive trade balance, which amounted on average to €151.7 million in 2011, with a marked trade specialization (INEA, 2012; Tudisca et al., 2013).

In order to achieve the objective of this study, the paper has been organized as follow. The first section analyze the theoretical framework and the literature review related to the studies on the transaction costs in agri-food sector. The second section shows the methodological approach used to address the research aim. The results of the direct survey are presented and discussed in the third section. The fourth section contains final considerations and some concluding remarks from the Authors.

## **THEORETICAL FRAMEWORK AND LITERATURE REVIEW**

The transaction costs theory, of which Ronald Coase and Oliver Williamson are the main representatives, is one of the current thinking pertaining to the neo-institutional theory that, since the '80 of the last century, interprets one of the richer approaches of the contemporaneous economic

theory. According to Williamson, economic agents will choose institutions, organizational forms, and transactions that minimize the costs of exchange depending on the dimension of transaction (asset specificity, uncertainty, and frequency) and behavioural assumptions (bounded rationality and opportunism) (Williamson, 1985; Royer, 2011). In existing studies, transaction costs are subdivided in ex-ante (e.g. information and negotiation costs) and ex-post costs (negotiation and monitoring ones) depending on the moment in which they arise (Williamson, 1985; Nugent e Lin, 1995); into fixed transaction costs, independent of the quantity sold or bought, and proportional transaction costs (Key et al., 2000; Renos et al., 2003).

In the last few years, several Authors have focused their interest on the analysis of transaction costs, developing theoretical concepts and empirical researches in different countries and economic sectors. In general, these studies reveal a relevant impact of transaction costs on the business governance and on the organizational models. In particular, transaction costs theory has been used to evaluate the goodness of the strategic choices of firms concerning sales channels, adherence to common organizations, in-sourcing or outsourcing of enterprises activities.

Many studies show the existence of a positive relationship between transaction costs, company size and vertical integration model. As suggested by Traversac et al. (2011), in their study on the French wine market, and Fernandez Olmos et al. (2009), in their work on Rioja wine in Spain, large firms are more oriented towards governance based on vertical integration and to direct sale to the final consumer in particular. Indeed, Traversac et al. (2011) suggests that small enterprises rely on third-party companies various activities e.g. packaging, distribution and retail sales of their wine. Other studies analyze the influence of transaction costs on the sale channels choice. Comparing the sale of live animals at auction with the sale of dead weight packaging directly to businesses, Hobbs (1997) analyses the influence of transaction costs on the choice of sale channels of cattle breeders in the United Kingdom. His results show that costs of trading negatively influence the choice of selling cattle at auction, while a positive effect is exerted by monitoring costs. Woldie and Nuppenau (2011) in their empirical study on the banana market in Ethiopia, found that information and negotiation costs negatively influence the producer's choice to sell at wholesalers; while, monitoring costs have a positive influence on the amount of product sold to wholesalers due to a greater level of trust with these agents. Negotiation costs linked to the time spent in the negotiation process, defined as fixed transaction costs, besides the distance from markets and the time taken to reach the market, are the most important determinants in the choice of formal sale channel for cattle farmers in Sub-Saharan Africa rather than informal channel (on farm sale) (Kyeyamwa et al., 2008). Similar results are obtained by Gong et al. (2007), according to which, negotiation and monitoring costs have a relevant influence, together with socio-economic factors, on the choice of market channels of the beef



producers in China. Also Royer (2011) found that the participation of dairy farmers to a marketing board (mainly diffused in Canada), compared to the bilateral contracts (widely used in the United Kingdom), leads to much higher information and negotiation costs, related to the time spent to drive the contracts, than monitoring costs. The latter, are more important for those firms that sign bilateral contracts.

Shiimi et al. (2010) in Namibia found that costs generated by the difficult access to market information together with negotiation costs, related to the problems of animals transport, negatively affect the participation of firms to the formal market compared to direct sell.

With specific reference to the vertical integration, as a strategy for SMEs' success, Fundira (2004), in his study on the fruit supply chain in South Africa, found that the asymmetric information and opportunism among the different figures which operate along the supply chain generate higher transaction costs. Bandon et al. (2009) in their study on factors influencing farmer's participation in new supermarket supply chain for fruits and vegetables in Honduras, highlight that human's competence and farm characteristics have not a significant influence in their choices. Authors shows that the benefits obtained from the participation in this new supply chain in terms of consequent higher price compared to alternative markets, have a positive influence, while the perceived risk associated to monitoring of quality and the delays of payments represent deterrents for the participation in these channels.

Transaction costs theory has also been used to study the impact of companies' participation in the agri-food forms of horizontal integration and the influence on the adoption of traceability systems. Several studies show that reduction of transaction costs is one the main reason pushing firms to establish cooperatives. Lemeilleur and Codron (2011) found that although participation in cooperative structures for sale to supermarkets drastically reduces those costs associated with information asymmetry, at the same time, it involves exorbitant costs related to the management of the structures, making most advantageous the direct sales to intermediaries. Staal et al. (1997) found that the participation of smallholder dairying in East Africa in dairy cooperatives contributes to the reduction of transaction costs due to economies of scale in the collection and transport management, and reduce the need for information about widely dispersed and small-scales buyers and sellers. Hernández-Espallardo et al. (2009) found that transaction costs play a more relevant role in explaining not only satisfaction, but also the desire to continue the relationship in the agricultural marketing cooperatives in the Spanish region of Murcia. Beside the contraction of transaction costs, the main reasons which leads producers to establish a cooperative are also the opportunity to increase market power, improving members' income, reducing operating costs, etc. (Ortman and King, 2007; Bijman and Hendrikse, 2003). Furthermore, adhesion to the cooperative structure is a viable option for small

farmers in particular that they face with a new set of transaction costs that emerge from dealing with a food system characterized by different rules, regulations and players (Pingali et al., 2005).

Concerning the adoption of voluntary traceability system, Banterle et al. (2006) in the Italian dairy chain and Banterle et al. (2008) in the Italian food supply chain, reveal that, if on one hand, it reduces the degree of uncertainty of the transactions, on the other hand, implies an increase of those monitoring costs that can be controlled through the diffusion of governance based on “vertical integration”.

Based on the literature review and taking into account the specificity of the sub-sector analyzed in this work, below we present our hypothesis:

H1. Firms selling to wholesalers and Large Scale Retail (LSR) channels support higher information, negotiation and monitoring costs than firms choosing direct sell.

H2. Inherited firms sustain low information, negotiation and monitoring costs, because they are present in the market since a longest period, and for this reason they have an easier access to market information. Moreover, they are able to easily acquire information, showing at the same time, a more efficient internal organization, a greater bargaining power, and a more efficient management of contractual relations with their final customers.

## METHODOLOGICAL APPROACH

Our research hypothesis has been empirically tested through a telephone survey to a sample of Sicilian firms producing and commercializing potted plants, excluding those specialized in cut flowers whom market characteristics differ a lot from the first one. This decision reduced a lot the universe of the economic sub-sector selected as, in several Sicilian provinces, firms are mainly specialized in cut flowers (such as: Ragusa).

Our starting sample was made up by 240 firms, geographically located in each of the 9 Sicilian Provinces. To produce the firm contact list, we have extracted the information of each unit from the official web site of Proflora and Florovivaismo, collecting several information on Ornamental Plants firms. Due to the high mortality rate, success of the interviews occurred for 50 out of 240 units (Table 1). This sample, although could look limited, was all the same able to provide interesting information about the economic sub-sector we wanted to investigate, allowing the production of a series of recommendations useful for a further investigation.

**Table 1 – Study Fact Sheet**

Unit of analysis	Data from the survey
Population	Sicilian companies producing and commercializing Ornamental Plants
Contacted firms	240
Succesfull Responses	50
Response rate	20.8%
Information sources	Structural surveys (through telephone interviews)
Survey period	From May, 2013 to September, 2013

The questionnaire for the interview was structured in 4 sections: the first one, addressed to collect specific information on firm (legal form, main productions, surface in hectares, year of constitution, commercial partners, annual turnover, and presence of staff for marketing, selling and production tasks) and the respondent (age, professional experience in years, professional role inside the firm, employment typology - part time or full time). The second, third and fourth part of the questionnaire were specifically addressed to collect information on the transaction costs incurred by firms, making a distinction among:

1. *Information costs*, namely availability of information about sale prices, distribution channels, product and process innovation. For these questions, respondents had to provide an opinion on the difficulties to obtain such kind of information, according to a Likert scale at 5 points.
2. *Negotiation costs*, according to the distribution channel: time devoted for the arrangement of the transport, commissions paid to the distribution channel, time needed to receive final payment from buyer, and bargaining power of firm. Also in this case, a Likert scale at 5 points was used.
3. *Monitoring costs*, linked to the management/resolution of those problems arising during the plants transport, or linked to the lack of typology/quality match of the product between what the client asked and the seller has sent. In this last section, we foresaw open questions.

Table 2 reports a detailed description of the variables used.

**Table 2 – Variables used in this study**

Variables	Modality
<i>Information costs:</i>	
- Sale price knowledge	Knowledge of the sales price during the production phase (1= yes; 0 = no)
- Information about sale channels	
- Information about markets	Access to sale channels information (Likert scale 1 – 5) <sup>(1)</sup>
- Information on product innovations	Access to markets information (Likert scale 1 – 5) Access to product innovation information (Likert scale 1 – 5)
- Information on process innovations	Access to process innovation information (Likert scale 1 – 5)

*Negotiation costs:*


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- Transport arrangements	Time spent in the preparation of orders (number of days)
- Receiving payments	Waiting time for receipt of payments (number of days)
- Influencing selling price	Power to influence the selling price (1 = yes; 0 = no)
- Bargaining power vs final customer	Bargaining power towards private client (Likert scale 1 – 5) <sup>(2)</sup>
- Bargaining power vs intermediaries	Bargaining power towards brokers and wholesalers (Likert scale 1 – 5)
- Bargaining power vs LSR	Bargaining power towards large-scale distribution (Likert scale 1 – 5)

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*Monitoring costs:*


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- Transport damage	Event damage during transport (1 = yes; 0 = no)
	Description of the damage (open question)
- Discrepancy	Discrepancy of quality and / or quantity (1 = yes; 0 = no)
	Description of the consequence (open question)

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<sup>(1)</sup> Note. Likert scale format: 1. Very easy; 2. Easy; 3. Fairly easy; 4. Difficult; 5. Very difficult.

<sup>(2)</sup> Note. Likert scale format: 1. None; 2. Low; 3. Fair; 4. Good; 5. Very good.

For the interpretation of the results we have made two different groups of our sample. As we show after, the first grouping is based on the selling channel mainly used, while the second one is according to the fact that a firm was inherited or was created as a new enterprise.

## RESULTS AND DISCUSSION

The 50 firms that successfully answered to our interview are mainly located in the Sicilian Eastern coast (like Catania, Siracuse and Messina), with a small sample from the Western coast (such Palermo and Trapani). On the whole, they recorded an average annual turnover quite oriented within the regional average range (less than 500,000 euros), with a small share of firms with an annual turnover > 500,000 euros (Table 3). This result reflects the average size of Sicilian firms operating in the Ornamental Plants sector that, according to the last General Agricultural Census 2010, is around 1.6 hectares (ISTAT, 2011).

Our survey allowed the quantification, both in monetary and opportunity/costs terms, of the three categories of transaction costs studied according to the selling channels choose by firms.

Concerning the information costs, expressed in terms of the entrepreneurs difficulties of access to the information about market, selling channel, product and process innovation, results show a low or none influence of these last on the selling channel choice. In particular, such kind of costs are almost

totally absent for those firms selling inside their building or through correspondence and more and more relevant for those firms selling to wholesalers and LSR channel (Table 4).

**Table 3 - Characteristics of firms**

Number	50
Legal form:	
- <i>Individual firm</i>	34
- <i>Cooperative</i>	16
Specialisation:	
- <i>Ornamental plants</i>	44
- <i>Ornamental plants and other products</i>	6
Surface (hectares):	
- <i>Average</i>	8.2 (min 0.1; max 70)
Sale channels:	
- <i>Direct sale</i>	5
- <i>Wholesalers</i>	30
- <i>LSR</i>	1
- <i>Mix</i>	14
Turnover (€):	
- < 50.00	12
- From 50.10 to 100.00 thousand	13
- From 100.10 to 300.00 thousand	10
- From 300.10 to 500.00 thousand	4
- From 500.10 to 1.00 million	9
- From 1.10million to 2.00 million	1
- > 2.00 million	1

**Table 4 – Comparison of transaction costs between producers categorized according to sale channels**

	Producers selling to private	Producers selling to intermediaries	Producers selling to LSR	Producers selling to 2 or 3 sale channels
<b>Observations</b>	5	30	1	14
<b>Transaction costs</b>				
Information costs				
- Time devoting to acquire information about selling channels	NR	NR	NR	NR
- Time devoting to acquire information about the market	NR	NR	NR	NR
- Time devoting to acquire information about product innovation	NR	NR	AR	NR
- Time devoting to acquire information about process innovation	NR	NR	NR	NR
Negotiation costs				
- Time devoting to transport arrangements	NR	NR	R	NR
- Waiting time for payment reception	NR	R	NR	R
- Bargaining power	R	NR	NR	NR
Monitoring costs				
- Transport damages	NR	R	R	R
- Non compliance in the quality/quantity	NR	R	NR	R

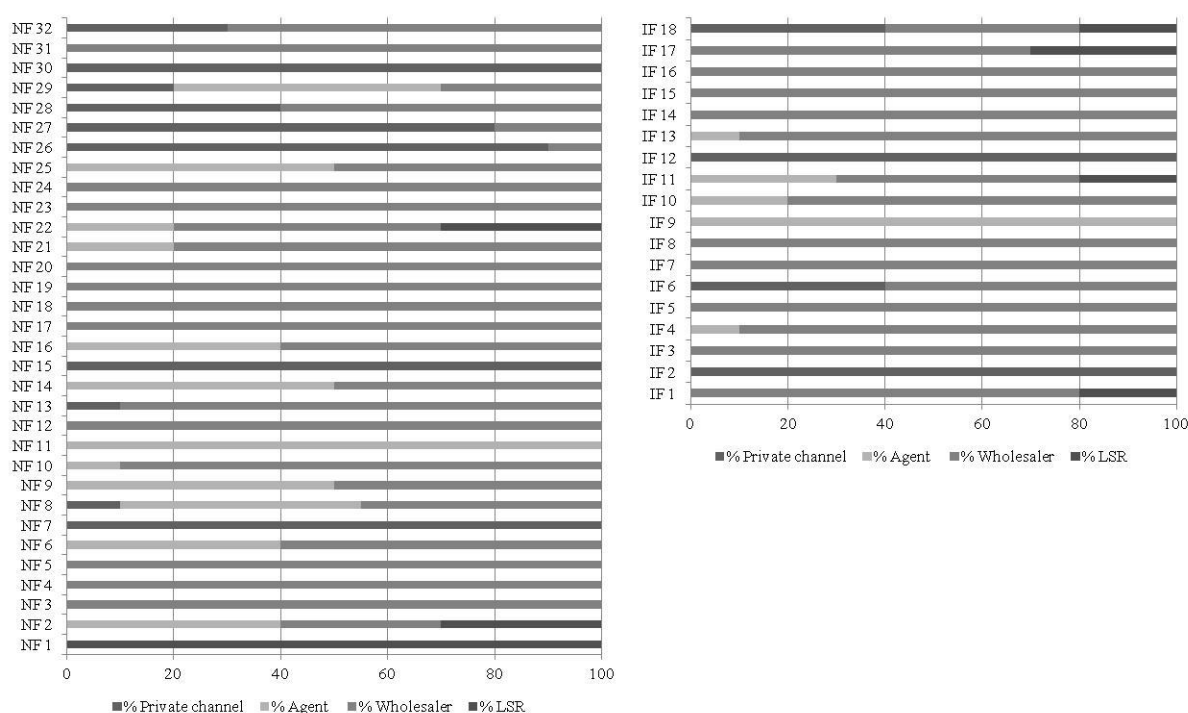
(R) Relevant; (AR) On Average Relevant; (NR) Not Relevant. This codification has been done by authors according to an ex post elaboration of the opinions collected through the Likert scales used in the questionnaire.

This result confirms our first hypothesis. A similar result was reached by Royer (2011), according to which information costs are higher for firms producing milk which habit is to sell to marketing institutions rather than those ones that agree upon bilateral trade contracts. Woldie and Nuppenau (2011) and Lemeilleur and Codron (2011) also assert that information costs are higher for those firms commercializing with wholesalers and selling agents rather than those firms selling their products through farmers cooperatives.

The ability to acquire information may be explained both by the Ornamental Plant market knowledge from entrepreneurs and, above all, by the well-established relationships with trade partners, a fact able to reduce the interest of firm owners to looking for different selling channels and/or new markets. This consideration is further confirmed having a look to a second division we made on our sample, namely: New Firms (NFs) and Inherited firms (IF) (Figures 1). With Inherited Firms we intend a

second-generation ownership status of enterprises, while all the other ones, born from an independent and spontaneous initiative, were inserted inside the New Firms group. Results show how the IFs have an easier access to such kind of information rather than NFs (Table 5), confirming our starting hypothesis. Moreover, while the IFs sample has declared to have a *very easy*, *easy* and *fairly easy* access to information, the NFs sample shows some difficulties for the same actions (represented by the number of answers in the grey rows of Table 5). Again, the different patterns performed by the two groups of firms operating in the same economic sub-sectors, confirm how IFs have more structural advantages allowing them to reduce, in this case, information costs.

**Figure 1 - Sales channels comparison between Inherited firms and New firms**



Source: Our elaboration on surveyed data.

Also with reference to the *negotiation costs*, results confirm the starting hypothesis: their influence in the selling channel choice results quite modest above all for those firms that usually commercialize their products directly inside firm. Indeed, these last, compared to those commercializing with intermediaries and/or with LSR, spend a lower time to fulfill orders and for the payment reception, that usually occurs in the same moment of the product delivering. A similar higher influence of negotiation costs in the sells to intermediaries was observed by Hobbs (1997). Indeed, he found that beef producers selling at auctions sustain higher negotiation costs than those selling directly to meat packers. A further confirmation comes from the results achieved by Woldie and Nuppenau (2011), according to which the difficulties in acquiring information together with the time spent in transacting with private traders is seen as the main deterrent in selling to wholesalers.

**Table 5 – Comparison of information access between Inherited firms and New firms**

	Inherited Firms (IF)				New Firms (NF)			
Observations:	18				32			
	Information about				Information about			
	Selling channels	The market	Product innovation	Process innovation	Selling channels	The market	Product innovation	Process innovation
Very easy	3	3	2	1	5	6	6	5
Easy	12	12	13	14	19	17	18	17
Fairly easy	3	3	3	3	4	5	3	5
Difficult	0	0	0	0	4	4	4	5
Very difficult	0	0	0	0	0	0	1	0

Finally, Royer (2011) find that negotiation costs weight for the 50% of the total transaction costs for those firms commercializing their milk with marketing board. Therefore, if on one hand, the high bargaining power allow firms to practice a greater influence on the selling price, on the other hand, these same costs increase when firms sell to intermediaries as, in favor of these last, entrepreneurs must return a monetary commission. Concluding the analysis on the sub categories of negotiation costs effect, we can add that transport costs are not able to play any influence as they are usually at the expense of the final client. From the comparison between IFs and NFs arises that the 94.4% of Inherited firms and the 87.5% of New Firms asserted to be able to influence their selling price. If this is true, it is obvious that they want not to lose such bargaining power that, at the same time, can be used only with wholesaler, agent and private channels. A different matter, in fact, is if they want to negotiate the selling price with the LSR: in this case, both NFs and IFs answered to have *none* or a *low* bargaining power.

As already evidenced in the literature (Traversac et al., 2011; Woldie and Nuppenau, 2011), also in the Sicilian Ornamental Plants market, the size of farmland cannot be ignored in enhancing market access and integrating the final products both into distant/new markets other than the local/national one, and to different marketing channels. At this regard, in our sample, only one firm (NF 1), with a farmland the biggest of the sample (70 hectares) is able to commercialize with mass-market, LSR, for the 100% of its turnover (501,000.00 – 1,000,000.00 euros). On the contrary, small enterprises frequently prefer the direct sale.

Finally, no exhaustive information arise from the analysis of the monitoring costs. They were analyzed in terms of explicit costs sustained by firms when a damage occurred during the despatch phase. In our survey, such kind of costs are present only for those firms that commercialize with intermediaries



or LSR. They are mainly linked to material damages occurred during the transport phase but also damages caused by the non compliance of the dispatched product to what the client ordered. In these last cases, the direct economic damages for firms can be quantified in terms of: extra-discount, order withdraw and consequent change, garbage disposal charge, and/or credit note.

## CONCLUSIONS

In this paper we discuss the role of transaction costs (information, negotiation and monitoring costs) on the choice of sale channels of a firms sample active in the Sicilian Ornamental Plant sector. The contribution of our work to the existing literature is well defined, as it represents a first attempt to define and quantifying transaction costs in a new agricultural sub-sector, both in monetary and opportunity/cost terms. The three categories of transaction costs have been studied according to the selling channels choice made from the surveyed firms, producing a further distinction between New firms and Inherited ones. Although we consider our work as a first step towards a more in depth study, e.g. including a bigger sample, our effort is anyway useful to trace a first route, represented by the results just presented.

Results of our study reveal as information, negotiation and monitoring costs are lower for firms adopting the direct sales as commercial channel than those selling to intermediaries or to LSR. In particular, an interesting data that emerges from the survey is that these cost items are more modest for inherited firms compared to young companies. This result is probably due to increased market knowledge and established relationships with the customers of inherited companies that allow to enjoy a greater bargaining power.

Concluding, we can assert that the capacity to negotiate and manage contractual arrangements, in the form of influencing the selling price (*negotiation cost*), affects the choice of the distribution channel. Ornamental Plants firms in Sicily, mainly prefer to commercialize with private channels, wholesalers and agents. In particular, through the direct sale, firms have the opportunity to maintain their bargaining power, preserving their market competitiveness. On the opposite, sales to wholesalers and agent, if on one hand, assure to firms an higher turnover, on the other hand, entail an increase in transaction costs. In this scenario, establishing cooperatives in places where they are almost inexistent and supporting those already established could not only improve the bargaining power of entrepreneurs allowing Sicilian firms to commercialize with further selling channels, like LSR ones. In particular, as asserted by Hernández-Espallardo et al. (2009), adhesion to cooperative offers to firms safeguards and information so that they can know more about the performance of the co-operative, at the same time, adapting their relationships to any new changes in the economic environment. Moreover, the cooperative choice must be taken into consideration also in order to solve some of the

infrastructural obstacles characterizing, above all, the Sicilian land, that negatively affect the competitiveness of territorial productions. At this regards, thanks to the recent political commitment from the Italian Ministry of Agriculture, Food and Forestry Policies such kind of obstacles have been correctly identified and discussed following a problem solving approach, which results are reported in the two Action Plans on Flower sector, that run, respectively, from 2005 to 2010, and from 2010 to 2012. In this context, the same Ministry, in 2011, suggested and concretely (financially) supported the drawing up of the first Made in Italy Brand for the Flowers and Plants, called *Vivai Fiori Made in Italy Brand* ([www.vivaifiori.it](http://www.vivaifiori.it)). A voluntary certification that, in the medium period, will probably increase the competitiveness of the Made in Italy products outside national borders. Such kind of effort would be surely strengthened if the cooperative approach will prevail against the individual market one. From a political programming point of view, a further step should have to come from the European Union technical commission, as established according to the Regulation n.1234/2007, through the provision from each Member State of proposals able to support flower and ornamental plant productions with the double aim to protect them from extra EU more competitive production prices and, at the same time, to guarantee the quality of the EU products themselves, as already happens for the agri-food products (Piano del Settore Florovivaistico, 2010/2012). The implications of our results and suggestions on the importance of the cooperative model will allow, *inter alia*, to improve price information networks and establishing well-defined and more solid contracts with clients. Moreover, taking into consideration the structural mental reticence characterizing farmers living in the southern regions of Italy, it is essential identifying measures, in range of Rural Development Policy, able to raise awareness about the marketing benefits deriving from aggregation processes among companies. Moreover, it is necessary the introduction in the commercial contracts of safeguard measures able to guarantee to the potential cooperative members a greater security about opportunistic behaviors.

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# INTERNATIONALISATION OF SMALL AND MEDIUM SICILIAN WINERIES: AN EXPLORATORY STUDY BASED ON THE RBV APPROACH

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## ABSTRACT

Strategies of internationalization, such as export, have a central role as well to safeguard the market position and survival for many enterprises, including small and medium ones. The aim of this study is to investigate, through a resource-based view (RBV) approach, the main firms' internal factors that affect the export propensity of sparkling wines producers in Sicily and their ability to insert into foreign market. Based on review of extant literature we have identified the main factors, related both to the firms and to the managers characteristics, that affect the firm performance in the export market. Using survey data of 94 Sicilian small and medium wineries export oriented, this paper shows that some firms and managers' characteristics affect the export activity of Sicilian wineries. In particular, our findings show that a lower perception of export barriers, experience in the sales in foreign market and the educational level, are the most important factors influencing the propensity to export. Results, although not generalizable, may help managers to be aware of the importance that some features have on the involvement of their company in the foreign market.

**Keywords:** *Internationalisation, Resource-based view theory, Wine sector, Small and Medium Enterprises (SMEs), Sicily*

## INTRODUCTION

Over the last few years, the economic process of the globalization of markets has led to a profound transformation of the wine market both in terms of production, with the entry of new producers countries, and in terms of consumption, with a growing trend of consumers, especially in some areas, toward quality wines consumption (Vrontis et al., 2011; Rossi et al., 2012; Crescimanno and Galati, 2014). The new consumer, as suggested by Nosi (2012), chooses wines apted to satisfy more complex needs than purely gastronomic ones, the function of which is enriched with experiential, symbolic and hedonistic elements. These intense and rapid changes have led to an intensification of competition on a global scale that has led to an increasing number of firms seeking opportunities in international

markets to achieve their objective, as well to safeguard their market position and survival (Leonidou et al., 2002). Within the process of internationalization, export maintains a central role being regarded as the simplest and quickest way to access foreign markets (Majocchi et al., 2005). As suggested by Czinkota and Ronkainen (1998) and Samiee and Walters (1990) a multiplicity of factors related both to the business characteristics and to the multiple, diverse, and idiosyncratic nature of foreign environments affect firms' survival, expansion and their success in export markets. Consequently, over the last few decades a growing body of empirical studies has been dedicated to understanding the factors that lead firms to develop international markets (Singh, 2009). In the economic literature, two different approaches have been proposed to analysing the determinants of a firm's export behaviour. On one hand, the Resource-based view (RBV) theory (Wernerfelt, 1984; Barney, 1991) focus on the internal determinant, that include structural and behavioural aspects that have a potential effect on export activity (resources and capabilities). Indeed, export, as suggested by Majocchi et al. (2005), requires various organizational devices and resource commitments and, therefore, the results of export activities can vary significantly according to the availability of resources. On the other hand, Contingency theory (Lawrence and Lorsch, 1967; Mintzberg, 1979) and Industrial organization theory (Bain, 1951, 1956; Scherer and Ross, 1990) linked to the environment in which the firm operates and the industry in which the same firm belongs.

If the environment in which businesses operate exerts a significant influence on their competitive power, in the Sicilian scenario characterized by well-known structural limits and a marked territorial marginality, play an important role the internal resources of the company. The aim of this study is to identify the main firms' internal factors that mainly affect the export intensity of sparkling wines producers in Sicily and their ability to insert into foreign market. Consequently, the Resource-based view theory lends itself to answer to the objective of our paper. The identification of this factors that can affect the performance of firms in export markets can have an immediate impact on marketing strategy decisions. In fact, it is not uncommon, as suggest Lages and Montgomery (2003), the firms' reactive behaviour based to the past results. In particular we focus on the Sicilian wineries that represent the main agri-food activity and they contributes to the promotion and enhancement of the territory and its resources (D'Amico et al., 2005). As suggested by Bellia (2007) wine manages to convey, in Italy and abroad, some intrinsic value of this land or of the main production areas. This product, in fact, cover 1.6% of the Sicilian agricultural production at basic prices and 9.3% of agri-food export in 2011, ranking among the top 4 agri-food products exported from the same region (INEA, 2013).

This paper is as a follows structured. In the next section we briefly present the theoretical background and the main studies on the determinant of firms' export success in foreign market. Section three

report the methodological approach and Research Hypothesis. The main results obtained by the empirical research are reported in section 4. The final section will give some concluding remarks.

## **THEORETICAL BACKGROUND AND LITERATURE REVIEW**

RBV theory has been one of the most recently developed theoretical framework to explain firm international behavioural (Rialp et al., 2005). In particular, this theory combines the traditional assumption adopted in other strategic managerial theories (firms are profit-maximizing entities and the managers are boundedly rational), with two additional assumptions, such as resource heterogeneity, that incorporate two attributes of the firms resources linked to their scarcity and non-substitutability, and resource immobility (Barney, 1991). The RBV theory asserts that the capacity of the firm to gain and sustain competitive advantage is dependent by the unique bundle of resources at the core of the firm that are inelastic in supply and competencies inside (Wernerfelt, 1984; Barney, 1991; Conner and Prahalad, 1996). Internal resources, able to influence the export performance, can be classified in three categories, linked both to the firms' structural characteristics (firms' characteristics) and to objective and subjective factors related to the managers (managerial characteristics, and management attitudes).

Concerning the firms' characteristics, Leonidou and Katsikeas (1996) assert that the role played by firms' structural factors is that of background forces facilitating or inhibiting the effective activation of the latent export stimuli. The physical size of the company is one of the main factors that influence firm performance in export markets. Numerous studies reveal that firms with a higher number of employees and higher sales have a greater ability to expand resource and, consequently, absorb risk and are more likely to export activity than smaller one (Erramilli and Rao, 1993; Suárez-Ortega and Álamo-Vera, 2005; Maurel, 2009). Majocchi et al. (2005), in their study on the Italian manufacturing firms, and Suárez-Ortega and Álamo-Vera (2005), in the Spanish wine industry, found that firms' experience can be considered another potent explanatory variables of the export performance since it is related to the firms maturity in the field of management, international transaction, and business partnership. Among the internal resources, firms' innovation degree plays an important role on the export performance. In fact, as suggested by various Authors, process and product innovation have a positive and significant impact on the likelihood that a firm will start to export and on its export intensity (López Rodríguez and García Rodríguez, 2005; Fernandez Olmos, 2011). Numerous empirical works show that innovation can generate a competitive advantage based not only on product differentiation but also on the costs, giving, thus, a greater competitive capacity of enterprises on the international scenarios (López Rodríguez and García Rodríguez, 2005; Tudisca et al., 2011; Di Vita et al., 2013). Some Authors found that the amount of firm's investments addressed to the

advertising is, among the main factors that affect the firms performance in export market, one of the main determinants that can contribute to increase the degree of firms' internationalization (Kotabe et al., 2002; Fernandez Olmos, 2011).

Managerial characteristics and their attitude and perception, linked to the objective or subjective factors, have a relevant influence on the firms' internationalization process. In particular, the age of the entrepreneurs and their level of education are explanatory variables of the firms' export performance. For example, younger entrepreneurs are more risk-oriented and more associated with policies of corporate growth than older managers (Suárez-Ortega and Álamo-Vera, 2005; Serra et al., 2012). Furthermore, as asserted by Tihanyi et al. (2000) and by Wieserma and Bantel (1992), entrepreneurs with a high degree of education can create the opportunity of exploring new context and tend to favour greater access into new international markets. As suggested by various Authors also professional abroad experienced and proficiency of foreign languages, affect the firms performance in export market because it facilitates social contacts, assist in understanding the business practices of a market, improve communication to and from markets (Turnbull and Welham, 1985; Zou and Stan, 1998; Osland et al., 2001; Suárez-Ortega and Álamo-Vera, 2005; Serra et al., 2012; Alaoui and Makrini, 2013).

Concerning the subjective factors, Westhead et al. (2001) emphasizing that the aspirations of entrepreneurs, along with other resources and internal capabilities of firms, have an important impact on the ability to enter export markets. Indeed, as asserted previously by Bloodgood et al. (1996) new venture's ability to enter foreign markets is directly related to its accumulated tangible and intangible resource linked to the human capital. Among these last can ascribed the motivations, and attitudes of entrepreneurs that influence their decision to export a proportion of their sales abroad. Suárez-Ortega and Álamo-Vera (2005) argued that the perception of entrepreneurs on the advantages and disadvantages of export activities have a relevant influence on the firms' performance in export markets.

## **METHODOLOGICAL APPROACH AND RESEARCH HYPHOTESIS**

The survey provides information related to the key factors that affect the strategic and trade performance of a sample of Sicilian wineries. Data were collected through telephone interview using a questionnaire. Pre-test was performed on ten companies in order to verify the correct understanding of the questions and detect errors in their formulation, subsequently it was changed on the basis of the answers. The choice of the sample was made from a list of 545 wineries provided by the "Istituto Regionale Vini ed Oli di Sicilia" using a stratified sampling method that took into account the number of wineries in the Sicilian provinces. Within each strata we proceeded to perform a simple random



sampling without replacement, in order to achieve a sample size of 140 units. The method used made it possible to achieve greater representativeness of the sample chosen. The 140 wineries were contacted by telephone and the questionnaire was sent to each of them via e-mail. 104 valid questionnaires were obtained, registering a non-response rate of 25.0% approximately whereof 94 relative to exporting wineries and 10 to non exporting firms. Taking into account the purpose of our study, the analysis was conducted only on the wineries export-oriented. Our sample reflects the importance of the wineries in Sicilian territory. The wineries investigated are mainly companies and cooperatives (70.2%); individual firms account for only 29.8% of the total number of wineries investigated. Wineries investigated have marketed more than 60 millions of wine bottles, in 2012, both in the foreign markets (53.4%) and in domestic market (46.6%). Concerning the foreign markets, wineries exporting to 34 different countries, among which relevant end markets are Germany, US, Switzerland and Japan. Production is marketed primarily through Large Scale Retail trade (37.5%), agents (29.3%), and Ho.Re.Ca. (20.4%) channels. Less frequent is the direct sales in the winery and the sale to wine bars and winehouse (12.8%). .

The questionnaire was divided in four thematic sections, each of which is aimed at capturing information necessary to explain the influence of internal resources to the enterprise internationalization process. First section collects general information on wineries with specific reference to the starting year of wineries activity and sales in foreign markets, number of employees engaged in the export activity, and presence of qualified figures. Second section includes information about the managers (age, years of experience in the wine sector, education level, proficiency foreign languages, work experience abroad). In the third section we collect information about wine production (in value and in volume) and end market (domestic and foreign markets), sales channels, investments in advertising and promotion, participation to national and international fairs, presence in the web, product and process innovations, and finally, quality aspects related to the production commercialized. Items introduced in the last section were constructed based on the works of Suárez-Ortega and Álamo-Vera (2005), Dhanaraj and Beamish (2003), Serra et al. (2012) in order to measure managers' perception of the barriers of exports (e.g. difficult access to credit, limited financial resources to support export activities, complex export documentation, different languages and cultures, limited information on foreign markets, shipping costs, trade barrier, etc.). More in detail, entrepreneurs were asked about their perception (positive or negative) with respect to the barriers of exports. Based on their answers, a dummy variable was built.

In order to answer to the purpose of this research, or rather to explain the main factors affecting the propensity to export of the Sicilian wineries a regression model is used. In particular, Likelihood ratio (LR) test allowed to choose a Log-linear model. From the questionnaire were identified 24 variables

related to the characteristics of the winery, the characteristics of the manager and his attitude and perception of the export activity. However, through the correlations analysis were excluded the collinear variables, that showed a high degree of correlation.

The estimated equation is as follows:

$$\ln(\text{EXP\_SAL}_{it}) = \beta_0 + \beta_1 \text{EXP\_WIN}_{it} + \beta_2 \text{NO\_T\_EMP}_{it} + \beta_3 \text{LEV\_INN}_{it} + \beta_4 \text{FAIRE\_TOT}_{it} + \beta_5 \text{AGE\_MAN}_{it} + \beta_6 \text{LEV\_EDU}_{it} + \beta_7 \text{PERC\_BAR}_{it} \quad [1]$$

In particular, the measure used to evaluate the performance in overseas market is the value of export sales that for this analysis represent the dependent variables ( $\text{EXP\_SAL}_{it}$ ). We preferred use the total volume of exports, than the share of total sales, so that we do not lose the size effect especially in the presence of a marked heterogeneity of the wineries. The explanatory variables used to represent each potential determinant of export performance in Sicilian wineries are presented in Table 1. In equation 1, the subscript  $i$  indicates the individual number of the wineries considered in our sample and  $t$  represents the last fiscal year released (2012).

Based on the research objective and on the literature review we present following our hypothesis:

**Hypothesis 1.** Export propensity of the wineries is positively related with the experience in export activity ( $H_{1a}$ ), number of employees ( $H_{1b}$ ), rate of investment in advertising, expressed in terms of participation to the trade fairs, ( $H_{1c}$ ), and level of innovation ( $H_{1d}$ ).

**Hypothesis 2.** Export propensity of the wineries is negatively related to the Managers' age ( $H_{2a}$ ) and positively related with the higher educational level ( $H_{2b}$ ).

**Hypothesis 3.** Wineries managed by entrepreneurs who perceive negatively the export activities have a low propensity to export.

**Table 1 – Variables used in the model**

Variables	Label	Categories
Firms' characteristics:		
- Wineries export experience	EXP_WIN	Number of years of export activity
- Level innovation	LEV_INN	1= low innovation; 2= medium innovation; 3=high innovation
- Numbers of total employees	NO_T_EMP	Number of total employees
- Numbers of total faire	FAIRE_TOT	Number of domestic and international fairs
Managers' characteristics:		
- Age manager	AGE_MAN	Number of years of the entrepreneur
- Level of education	LEV_EDU	1= primary or lower secondary school; 2= upper secondary school; 3= university or post lauream
Perceived barriers to trade:		
- Perception of barriers	PERC_BAR	1= no negative perception; 0= negative perception

## RESULTS AND DISCUSSION

The econometric analysis was carried out using a Ordinary Least Square (OLS) model to evaluate the influence of the main determinant on export performances of the Sicilian wineries. The results from the regression, obtained using the SPSS software -Version 17.0-, are presented in Table 2. As we can see, the model has got a reasonable explanatory power with a  $R^2$  of 0.476, this means that 47.6% of the variation of export sales is explained by the explanatory variables introduced in the model. Most of the coefficients of the basic regression equation are statistically significant at level less than 5% and present, in the most cases, the expected sign.

The model shows that the most important factor that influences the sales in foreign markets of the wineries is the managers perception of the export barriers (management attitudes). As suggest our results, the lower is the negative perception of managers respect to the main export barriers, greater is the share of output sold abroad. Therefore, Hypothesis 3 is strongly supported by data. Our findings are in line with those revealed by Suárezs-Ortega and Álamo-Vera (2005) in the Spanish wine industry, according to which exist a positive influence of the perceived export advantage on export intention.

**Table 2 – Results of the adopted model**

<i>Dependent variable = Ln_EXP_SAL</i>				<i>R<sup>2</sup> = 0,476</i>	
<b>Variable</b>	<b>Coefficients</b>	<b>Standard error</b>	<b>t - value</b>	<b>Student statistics</b>	<b>t VIF</b>
CONST	5,694	1,112	5.122	0,000*	
EXP_WIN	0,026	0,010	2.754	0,007*	1,059
LEV_INN	0,489	0,232	2.110	0,038**	1,101
NO_T_EMP	0,011	0,005	2.036	0,045**	1,288
FAIRE_TOT	0,207	0,080	2.756	0,012**	1,310
AGE_MAN	0,000	0,014	-0.16	0,987	1,032
LEV_EDU	0,689	0,306	2.252	0,027**	1,055
PERC_BAR	1,308	0,344	3.807	0,000*	1,140

Notes: \* significant at the 1%; \*\* significant at the 5%; \*\*\* significant at the 10%. Number of observations = 94.

Relevant factors that affect the propensity to export are the structural firm characteristics. In particular, the effect of the experience in the sales in foreign market on the propensity to export is, as expected, positive and significant. Consequently, also the Hypothesis 1a is supported. According to the results of Majocchi et al. (2005) experience can influence export performance because it gives the company more maturity in terms of management, international transaction, business partnership. Clear results also come from the relationship between fairs participation and export propensity. As expected, this relationship is positive and statistically significant. Therefore Hypothesis 1c is supported. This results show that the promotional activity of the wineries allows wineries to establish

and/or strengthen relations with foreign buyers competing to increase sales in foreign markets. Similar result are obtained by Fernandez Olmos (2011) in your investigation on the DOC Roja wineries in Spain. According to the Author exist a positive and significant relationship with the degree of internationalisation due to the spend heavily on advertising with the intention of increasing export sales. The model shows a positive relationship between export sales of Sicilian wineries and their level of innovation. Therefore, Hypothesis 1d is supported by data: the higher is the degree of innovation introduced in the winery in recent years (both as innovations of product and process), better is the export performance. Numerous empirical studies show, in fact, that technological resources confer to the firms a competitive advantage in terms both of costs, due to the development of new and more efficient process, and the differentiation, by means of innovation. Our results, are in line with those obtained by López Rodríguez and García Rodríguez (2005) and Roper and Love (2002) according to which, respectively, process and product innovations are the key factors for the generation of competitive advantage for firms. Other significant variable of the model is linked to the number of employees. According to others findings of empirical studies (Javalgi et al., 1998; Vermeulen, 2004; Suárez-Ortega and Álamo-Vera, 2005; Maurel, 2009; Serra et al., 2012), our model shows that the greater is the physical size of the winery, measured in terms of fix and seasonal employees, the greater are the sales in foreign markets. Consequently, hypothesis 1b is supported by data.

Among the managerial characteristics, only the coefficient of level education is positive and statistically significant, confirming Hypothesis 2b: indeed, the level of training affects export performance and its impact is slightly lower than the one that has been computed for experience abroad of the wineries. This result confirms, as other authors previously highlighted, that the greater is the level of training of manager, much higher is the performance in overseas market (Wieserma and Bantel, 1992; Tihanyi et al., 2000; Fernandez Olmos, 2011). On the contrary, the effect of the manager age on the export propensity is, as expected, negative although the related coefficient isn't statistically significant.

In order to verify the existence of collinearity, our model was subjected to the several diagnostic tests. In particular, we have analyzed the values of Tolerance and Variance Inflationary Factor (VIF) related to  $\beta$  parameters. The first has rated from 0,763 and 0,969 showing that the numerous correlations between the variable at issue and the other repressors are low. The values of VIF resulted in a range between 1,032 and 1,310 reveal that there are the presence of moderate collinearity between the explanatory variables of the model. In general, critical values that underlie a strong collinearity are comprised between 5 and 10.

## CONCLUDING REMARKS

Internationalization strategies, such as export, are important tools for the firms to exploit new opportunity in foreign markets. The empirical analysis presented in this study contribute to a better understanding of the relationship between internal firms' characteristics and managerial characteristics on the export performance. In particular, to achieve the research objective the RBV of the firm approach has been used as theoretical framework.

The findings of our analysis suggest that the positive attitude shown by manager respect to export activity is the most important factor that improves the export propensity of wineries, providing it with greater capacity to enter and sell products in foreign markets. Concerning firms' characteristics influencing export behavior, experience of wineries in the sales in foreign markets, and firm size, measured in terms of employees' number, affect significantly the firm performance in export market. Important determinant is also the investment level in process and product innovation. This result shows that R&D investment intensifies the internationalization since the foreign markets contribute to the firm recovering its investment, or at least to doing so more quickly. Furthermore, the positive effect of investment in advertising and promotion confirms that wineries in this region can benefit from the participation in domestic and international wine fairs. Finally, also an high education level of the managers, influence positively the export performance, since it can create opportunity of exploring new international markets.

The present study represents the first contribution in the economic literature on export determinants of Sicilian wineries, however, the results must be viewed in light of the study's limitations. On one hand, our work is limited to a restricted geographical scope, and on the other hand, it's limited to a specific economic market. These limitations, maybe, do not permit the generalization of results in other areas and other economic sectors.

The results of this research, although not generalizable, show important implications especially for managers of wineries, which could provide useful information for the cellars management. These results, in fact, could help the managers to optimize the internal resources considering the importance that these have on export performance.

A higher exports experience, isn't a feature that young companies can have, besides not all the companies can boast a large number of employees. However, it's possible to recruit qualified staff capable of managing the relations with foreign customers and that has a lesser negative perception of exports barriers. In this sense, it may be advisable to set up programs that provide foreign language learning or an understanding of new technologies. Also it's possible too renew the entrepreneurial class and maintain an innovation constant level in order to satisfy the dynamic demand market.

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## DEALING WITH THE NEED OF GREEK PORTS EXPANSION: A PUBLIC-PRIVATE PARTNERSHIP OPPORTUNITY?

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### ABSTRACT

Greece, located at the eastern portion of the Mediterranean Sea (Med) and a country with an enormous number of islands, is a shipping superpower. The Med is amongst the world's busiest waterways. It provides access to the Black Sea and quite often it is characterized as the most important element of the transport chain between Asia and Europe. The Greek Prime-Minister himself has openly declared his strategic vision to transform the country into a major hub for Europe's commerce; numbers of port-visits in the country under discussion are extremely high and expectations are that with the upcoming recovery of the Greek economy they will further increase. However, the current infrastructures -especially those of Piraeus and Thessaloniki (the largest and busiest ports of the Hellenic Republic)- are clearly in need of expansion. This paper briefly examines the framework of Public-Private Partnerships (PPP) and suggests that the specific methodology can provide a solution to overcome the need of financing for the various urgently needed projects that will allow the introduction of new and improved services towards various types of ships. The obvious conclusion is that with the Greek economy still in recession, the necessary framework that will allow the commencing of the technical works, such as the expansion of berths and storage facilities and the interconnections with highways and rail-lines, can be found only through partnerships of the government controlled port-authorities and large in size constructing companies of the private sector. These partnerships should be considered as a win-win situation for all parties involved. They provide an ideal opportunity for expanding infrastructures and/or services towards shipping without adding more to the already enormous government-guaranteed debt.

**Keywords:** *Public - Private Partnership (PPP), maritime transport, Mediterranean Sea, ports expansion, infrastructures, contracting out, Greece, Piraeus, Thessalonica, Maritime Law, Crimean Peninsula.*



## MARITIME TRANSPORT AND THE MEDITERRANEAN SEA

The key characteristic of the contemporary world is the interconnectedness among societies and people across the national boundaries of nation-states. This complex process is called globalization and it is a phenomenon with multi-level influences (P. Sioussiouras & D. Dalaklis (a), 2009). It provides societies and/or individuals with enormous economic opportunities; it also enables the diffusion of technological or scientific knowledge and facilitates investments in international level. With oceans covering almost three-quarters of the earth's surface and with well over 80% of all international trade transported by sea (UNCTAD, 2013), maritime transport should be considered as the backbone of globalization and extremely vital for all "just-in-time economies", such as those of Europe and the United States (D. Dalaklis, 2012). Today, shipping is by far the most international of the world's industries, serving vast quantities of global trade. Each and every day, ships of different size and capabilities carry huge quantities of cargo cost effectively, cleanly and safely. It is important to note that the ownership and management chain surrounding any ship can embrace many countries. It is indicative that ships spend their economic life moving between different jurisdictions, often far from the country of registry.

The Mediterranean Sea (Med) is amongst the world's busiest waterways. For example, during the year 2006 (before the outbreak of the current global financial crisis), 15 per cent of global shipping activity by number of calls and 10 per cent by vessel deadweight tons (DWT) were noted in the wider region. The same year, 13.000 merchant ships made 252.000 calls at Mediterranean ports, totaling 3.8bn DWT. Every year the equivalent number is increased, no matter of the on-going global economic recession. Statistics also clearly indicate that at the same time around 10.000 (mainly large) vessels transited the area under discussion en-route between non-Mediterranean ports. Merchant vessels operating within and through the Mediterranean are getting larger and carrying more trade in larger parcels. Vessels transiting the Med average around 50.000 DWT and are (again, on average) over three times larger than those operating within the Mediterranean (REMPEC, 2008).

The Med's geo-economic significance is made clearly obvious by the fact that it is a common area for three different continents: Europe, Asia and Africa. Furthermore, it is necessary to note that there are two very important sea straits in its eastern basin: The first one is the Dardanelles, through which the Mediterranean Sea (and the Aegean Sea) communicate with the Black Sea and the various countries whose coastlines are located on the wider region of Black Sea; of course, for the latter the access to the open (warm) seas is secured. The second gate of interest is the Suez Canal. Subsequently, the following two basic axes with special importance for maritime transports are formed: a) Atlantic Ocean-Mediterranean Sea-Red Sea and b) Black Sea-Aegean Sea-Mediterranean Sea-Indian Ocean. As a result, the Mediterranean is often characterised as an extremely important element of the modern

maritime transport system and, above all, as the most important link of the transport chain between Asia and Europe (see figure 1)



Figure 1: Major transport routes and the role of the Mediterranean Sea

Source: J. P. Rodrigue, C. Comtois & B. Slack, *The Geography of Transport Systems*, Routledge, New York, 2009.

## DEFINITION OF PPPS

A public-private partnership (PPP) is a government service or private business venture which is funded and operated through a partnership of government and one or more private sector companies. These schemes are sometimes referred to as PPP, P3 or even P<sup>3</sup>. In the last few years, public-private partnerships (henceforth PPPs) have gained importance as vehicles to finance public infrastructure across Europe. PPPs have developed from their traditional base in the transport sector to the areas of public buildings and equipment (i.e. schools, hospitals, prisons, etc) and the environment (i.e. water/waste treatment, waste management). Also, by comparing between the various European Union's (EU) countries, experience with PPPs has become more diversified through the years. Beyond the (leading) UK, some countries have developed and diversified their PPP markets extensively, such as France, Germany and Spain; others have clearly shown limited interest in the specific domain but have already started to firmly develop PPP programs. Still, there today many EU Member States who have only limited experience with PPPs (A. Kappeler & M. Nemoz, 2010).

While the term PPP has been in use since the 1990s, there is no single European model of a PPP. In some countries, the concept of a PPP equates only to a concession where the services provided under the concession are paid for by the public. In others, PPPs can include every type of outsourcing and joint venture between the public and private sectors. As a result, the recorded number of PPP projects may vary considerably across data sources. In its Green Paper on PPPs, the European Commission recognized that the following elements normally characterize a PPP (A. Kappeler & M. Nemoz, 2010):

- The relatively long duration of the relationship, involving cooperation between the public partner and the private partner on different aspects of a planned project (...);
- The method of funding the project, in part from the private sector, sometimes by means of complex arrangements between the various players (...);
- The important role of the economic operator, who participates at different stages in the project (design, completion, implementation, funding) (...);
- The distribution of risks between the public partner and the private partner, to whom the risks generally borne by the public sector are transferred (...).

## ORIGIN AND PPPS PARADIGMS

Pressure to change the standard model of public procurement arose initially from concerns about the level of public debt, which grew rapidly during the macroeconomic dislocation of the 1970s and 1980s. As a response, governments sought to encourage private investment in infrastructure, initially on the basis of accounting fallacies arising from the fact that public accounts did not distinguish between recurrent and capital expenditures. Initially, most public-private partnerships were negotiated individually, as one-off deals, and much of this activity began in the early 1990s. The idea that private provision of infrastructure represented a way of providing infrastructure at no cost to the public has now been generally abandoned; however, interest in alternatives to the standard model of public procurement persisted. In particular, it has been argued that models involving an enhanced role for the private sector, with a single private-sector organization taking responsibility for most aspects of service provisions for a given project, could yield an improved allocation of risk, while maintaining public accountability for essential aspects of service provision. PPP involves a contract between a public sector authority and a private party, in which the private party provides a public service or project and assumes substantial financial, technical and operational risk in the project. In some types of PPP, the cost of using the service is borne exclusively by the users of the service and not by the taxpayer (J. Barlow, J. K. Roehrich & S. Wright, 2013).

From the historical point of view, it is interesting to note that during the year 1992, the Conservative government (of John Major) in the UK introduced the Private Finance Initiative (PFI), the first

systematic program aiming at encouraging public–private partnerships. This program focused heavily on reducing the Public Sector Borrowing Requirement, although, as already noted, the effect on public accounts was largely illusory. The succeeding government (of Tony Blair), which was elected in 1997, followed roughly the same path. The government made the necessary legal provisions and expanded the PFI initiative; but it also sought to shift the emphasis to the achievement of "value for money," mainly through an appropriate allocation of risk. However, it has since been found that many programs ran dramatically over budget and have not presented as value for money for the taxpayer with some projects costing more to cancel than to complete. A common problem with PPP projects is that private investors quite obtained a rate of return that was higher than the government's bond rate, even though most or all of the income risk associated with the project was borne by the public sector (J. Barlow, J. K. Roehrich & S. Wright, 2010).

There are usually two fundamental drivers for PPPs. Firstly, PPPs are claimed to enable the public sector to harness the expertise and efficiencies that the private sector can bring to the delivery of certain facilities and services traditionally procured and delivered by the public sector. Secondly, a PPP is structured so that the public sector body seeking to make a capital investment does not incur any borrowing. Rather, the PPP borrowing is incurred by the private sector vehicle implementing the project and therefore, from the public sector's perspective, a PPP is an "off-balance sheet" method of financing the delivery of new or refurbished public sector assets. Typically, a private sector consortium forms a Special Purpose Company, called a "Special Purpose Vehicle" (SPV) to develop, build, maintain and operate the asset for the contracted period (J. Zheng, J. K. Roehrich, & M. A. Lewis, 2008).

In cases where the government has invested in the project, it is typically (but not always) allotted an equity share in the SPV (M. Zoro & P. Gasiorowski, 2008). The consortium is usually made up of a building contractor, a maintenance company and bank lender(s). It is the SPV that signs the contract with the government and with subcontractors to build the facility and then maintain it. In the infrastructure sector, complex arrangements and contracts that guarantee and secure the cash flows make PPP projects prime candidates for project financing. A typical PPP example would be a prison building, financed and constructed by a private developer and then leased to the prison authority, or directly to the government through the Department (Ministry) of Justice.

In summary, PPPs constitute long-term contracts of technical works construction or of services provision, with allocation of risks shared between the public sector and the private one; the main aim of this approach is to ensure beforehand the necessary financing of the scopes. The term "sponsored PPP" declares the PPP case, in which the cost of providing the service is jointly borne by the users of the service and the government through a capital subsidy, not wholly borne by the Public

Administration (administrative PPP). On the contrary, in the traditional type of public works contracts there is no allocation of risks and the private contractor gets the reward for the part of the technical works already completed during the execution of the contract, uniquely by the public contractor (K. Evangelatou, A. Maniatis & O. Manoliadis, 2013).

## THE GREEK DIALECTIC RELATIONSHIP WITH SHIPPING

Greece is a maritime nation by tradition, as shipping is arguably the oldest form of occupation of the Greeks and has been a key element of the country's economic activity since ancient times. There are various explanations for this phenomenon. To begin with, the mountainous landscape of the mainland and the rather limited available farming area has enforced many people to look towards a different direction in order to cover their necessity of work/occupation. Furthermore, the numerous islands of Greece and the extended coastline provide another incentive for people to deal with the reaches of the sea: shipping and trade. The Hellenic Republic enjoys a very privileged geographical position. It is situated on the crossroads of various major sea lanes in the eastern Mediterranean (see figure 2) and with extremely large proximity to two other rather overpopulated continents: Asia and Africa. The Suez Canal and the Dardanelles Straits are two extremely important choke points for maritime traffic. They both gather a significant high number of ships, with the technical construction between Suez and Port Said steadily exceeding the number of 20.000 crossings per year.

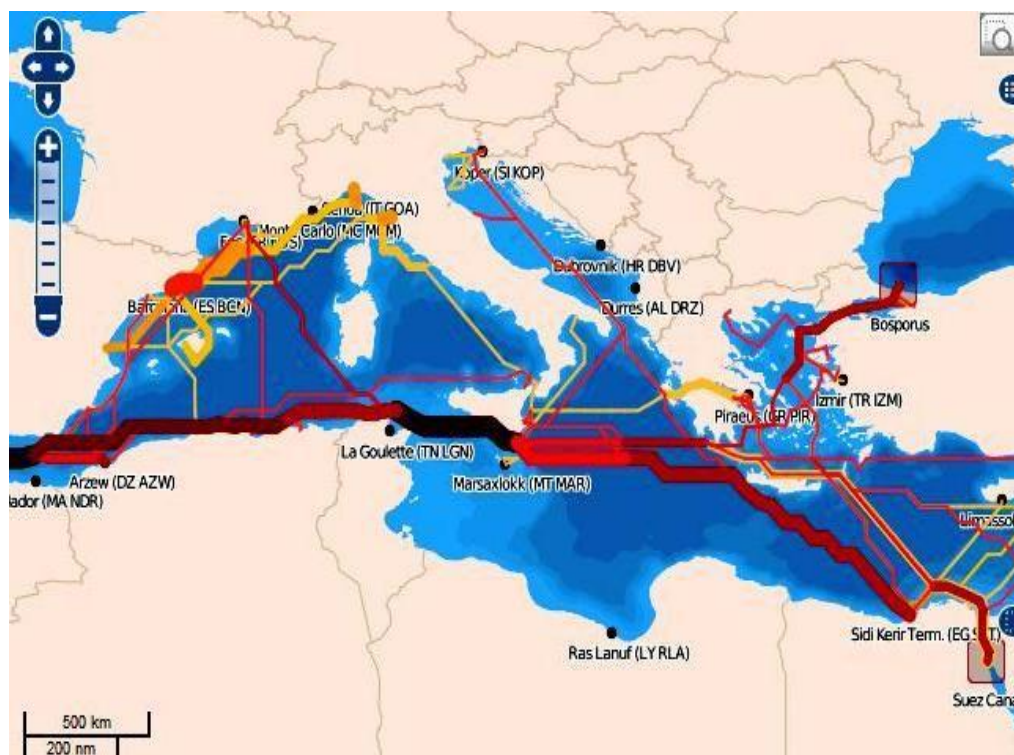


Figure 2: Major transport routes within the Mediterranean Sea

Source: [www.rempec.org](http://www.rempec.org), February 2012.

Yellow lines refer solely to cargo and container ships, while the red mainly to tankers but also to all other types of ships. Additionally, the thickness of the line represents the number of ships following the specific route. Furthermore, there is the Corinth Canal (6 km long), which connects the Gulf of Corinth with the Saronic Gulf and shortens the sea voyage from the Adriatic Sea to the port of Piraeus by 325 km.

For example, in 2008, a total of 21.415 vessels passed through the canal and the revenues from the canal totaled \$5.381 billion. Although the current financial crisis and piracy activities in the Gulf of Aden has negatively impact the number of Suez crossings, since the second quarter of 2013 associated numbers are going up: EU's naval operation ATALANTA has clearly suppressed the Somali pirates' actions (D. Dalaklis, 2013). In any case, a considerable proportion of the world's energy resources - mainly oil and natural gas passes through the Mediterranean and also through the Aegean Sea (see also figure 2). It is not only those originating in the Persian Gulf; from this particular maritime corridor -either solely by oil tankers or through a combination of pipelines and medium or large tankers- that the entire trade of energy resources coming from the Caspian Sea and Russia is being transported (D. Dalaklis, P. Siousiouras & N. Nikitakos, 2009).

An additional equivalent of 20.05% of the world's tanker DWT is on order, with another 12.1% of bulk carriers also on order. Today, shipping is one of the country's most important industries. It accounts for 6% of GDP, employs approximately 160,000 people (an important portion of the total workforce). Earnings from shipping amounted to €15.4 billion in 2010, while between 2000 and 2010 Greek shipping contributed to the country output a total of €140 billion. A European Community Ship-owners' Association (ESCA) report for the years 2010-2011 emphasized that the Greek flag is the fifth-most-used internationally for shipping, while it ranks first in the EU (see table 1); the same ECSA report stressed the fact that there were approximately 750 Greek shipping companies in operation.

Year	2000	2001	2002	2003	2004	2005	2006-2008	2009	2010	2011
Global ranking	5th	5th	5th	4th	3rd	5th	-	5th	6th	4th
"Exports" (US\$ million)	7,558.995	7,560.559	7,527.175	10,114.736	15,402.209	16,127.623	-	17,033.714	18,559.292	17,704.132
"Exports" (€ million)	8,172.559	8,432.670	7,957.654	8,934.660	12,382.636	12,949.869	-	12,213.786	13,976.558	12,710.859
"Exports" as %GDP	5.93	5.76	5.08	5.18	6.68	6.71	n/a	5.29	6.29	6.10

Table 1: Metrics of Greek shipping and its contribution to the country's GDP

Source: "ITC Trade Map: List of exporters for Sea Transport " and EUROSTAT (in Wikipedia).

## GEOGRAPHY AND TRANSPORT SYSTEMS WITHIN GREECE

It was already pointed out that Greece is strategically located at the crossroads of Europe, Western Asia, and Africa. It shares land borders with Albania to the northwest, the Former Yugoslav Republic of Macedonia (FYROM) and Bulgaria to the north and finally Turkey to the northeast-east. The country consists of nine geographic regions: Macedonia, Central Greece, the Peloponnese, Thessaly, Epirus, the Aegean Islands (including the Dodecanese and Cyclades), Thrace, Crete, and the Ionian Islands. The Aegean Sea lies to the east of the mainland, the Ionian Sea to the west, and the Mediterranean Sea to the south. Greece consists of a mountainous, peninsular mainland jutting out into the sea at the southern end of the Balkans, ending at the Peloponnese peninsula (separated from the mainland by the canal of the Isthmus of Corinth). Due to its highly indented coastline and numerous islands, Greece has the 11th longest coastline in the world with a total of 13,676 km; its land boundary is 1,160 km. The country lies approximately between latitudes 34° and 42° N, and longitudes 19° and 30° E. Greece features a vast number of islands, between 1,200 and 6,000, depending on the definition, a large number of which are inhabited. Crete is the largest and most populous island; Euboea, separated from the mainland by the 60m-wide Euripus Strait, is the second largest, followed by Rhodes and Lesbos.

The Greek islands, all equipped with small or large ports, are traditionally grouped into the following clusters: The Argo-Saronic Islands in the Saronic gulf near Athens, the Cyclades, a large but dense collection occupying the central part of the Aegean Sea, the North Aegean islands, a loose grouping off the west coast of Turkey, the Dodecanese, another loose collection in the southeast between Crete and Turkey, the Sporades, a small tight group off the coast of northeast Euboea, and the Ionian Islands, located to the west of the mainland in the Ionian Sea. Eighty percent of Greece consists of mountains or hills, making the country one of the most mountainous in Europe. Large parts of Greece depend on a strong shipping industry for sustenance and growth. The Aegean and Ionian seas, with over 2,000 islands and islets spread around (as well as numerous dangerous rocks), could not be sustained and developed without the existence of a well organized and developed merchant navy and ferry services. Transport in Greece has undergone significant changes in the past two decades, vastly modernizing the country's infrastructure. Although ferry transport between islands remains the prominent method of transport between the nation's islands, improvements to the road infrastructure, rail, urban transport, and airports have all led to a vast improvement in transportation. These upgrades have played a key role in supporting Greece's economy, which in the past decade has come to rely heavily on the construction industry.

The Greek Prime-Minister himself has openly declared his strategic vision to transform the country into a major hub for Europe's commerce. It is true that Greece retains one of the leading places in

international shipping. The reciprocal relations between profits from maritime activities and national economy constitute merchant vessels as the fundamental factor and the means of development that are beyond the boundaries of the transport sector. On the other hand, there many important steps towards the transformation of the country into a vital center of European commerce, with the expansion of the current infrastructures in various ports standing out. Unfortunately, the lack of financing is the main obstacle for improving the quality of services; without a significant improvement there is no way to attract additional ships' visits in the Greek ports. Furthermore, several problems are currently encountered in short-distance navigation, in ocean-going navigation and also in passenger/tourist cruises that are taking place within the sea areas of the Hellenic Republic. Needless to mention, maritime policy decisions should be made by taking into account the possibility of maritime accidents, sea and coastal pollution and the congestion of marine waterways, especially in areas that present the greatest demand for access (D. Dalaklis, P. Siousiouras & N. Nikitakos, 2009).

The framework of Public-Private Partnerships (PPP) can provide a solution to overcome the need of financing for the various urgently needed projects that will allow the introduction of new and improved services towards various types of ships. The analysis that follows will not cover each and every Greek port available. Statistics clearly indicate that the two busiest ports of Greece are by far Piraeus and Thessaloniki; they will be the centre of attention. There are tremendous benefits in a PPP and these partnerships should be considered as a win-win situation for all parties involved. There is an obvious explanation: they provide an ideal opportunity for expanding infrastructures and/or services towards shipping without adding more to the already enormous government-guaranteed debt.

## THE PORT OF PIRAEUS

A port is a location on a coast or shore containing one or more harbors where ships can dock and transfer people and/or cargo to or from land. Port locations are selected to optimize access to land and navigable water, for commercial demand, and for shelter from wind and waves. Since ports throughout history handled every kind of traffic, support and storage facilities vary widely. Associated piers, buildings and other infrastructures may extend for many miles and usually dominate the local economy, with impact up to the national level. Apart from the commercial activity, some ports might also have an important military role (naval bases). The Port of Piraeus, as the largest Greek seaport, is one of the largest ports in the Mediterranean Sea basin and one of the top ten container ports in Europe. The port is also a major employer in the area, with more than 1,300 employees who provide services to more than 24,000 ships every year. With a history dating from 1924 when major civil works started taking place, Piraeus Port today has a range of activities



concerning the Commercial and Central Ports, ship services and real estate development. The specific port connects continental Greece with the numerous islands of the; it is an international cruise center and a commercial hub for the Mediterranean, providing high quality services to ships of (almost) any type and size. Today, the government controlled Piraeus Port Authority (PPA SA) has a very important contribution towards the local and national economic growth and is further developed by upgrading both the infrastructure and the services provided. The Container Terminal of the Piraeus Port Authority began its operation in June 2010. With a projected annual capacity of 1.000.000 TEUs, it constitutes the main pier for freight activities of PPA SA. The Container Terminal has facilities and equipment of high standards and has the ability to offer advanced services in loading & offloading containers. There exist two platforms; the East one of 500m length and 18m depth and the West one of 320m length and 12m depth. Next to the station, the new waterside railway station of the Hellenic Railways Organization will operate, whose main railway line will link the length of the freight port of N. Konya with the new Freight Station of Intermodal Transport at Thriassio of Eleusina.

Piraeus is the largest port in Europe (and one of the largest in the world) concerning passenger traffic. It has a throughput volume of about 20 million passengers per annum (including the ferry traffic Salamis–Perama, which has a throughput volume of about 8 million passengers per year). It is the main link between the mainland and the Aegean islands and Crete, while also being the main sea gate of the European Union at its southeastern edge. The boundaries of the Main Port are the piers of Themistocles and Krakari. Furthermore, there is very large a cargo terminal; a car terminal is also included. Clearly, upgrades of the infrastructures are already taking place. For example, the completion of the new port-side railway station, as well as the connection with the G2 car terminal in July 2013. Future expansions of the Car Terminal are underway and necessary to complete in time - according to the 5-year investment plan of PPA SA- to ensure that the port will remain ahead of its competitors. However, in order to acquire/preserve the status of a central transshipment gateway for the whole Mediterranean region there is much more to be done, with interconnections to the national rail grid standing out. And in all these activities the role of financing is more than crucial.

## **THE PORT OF THESSALONIKI**

The Port of Thessaloniki is one of the largest Greek seaports and one of the largest ports in the Aegean Sea basin, with a total annual traffic capacity of 16 million tonnes (7 million tonnes dry bulk and 9 million tonnes liquid bulk). As a free port, it also functions as a major gateway for the Balkan hinterland and south-eastern Europe. The port of Thessaloniki also contains the second largest container port in Greece, after the port of Piraeus. Containers are handled through a specially arranged area located in the western part of pier 6. The 550 m. long and 340 m. wide Container

Terminal can berth ships with a draught up to 12 m. The specific infrastructure is part of the Free Zone; it covers a surface area of 254,000 square meters, with an on-site storage capacity of 4,696 TEUs in ground slots. The Container Terminal was designed and created in accordance with state-of-the-art technologies and is equipped with modern container handling equipment. The terminal includes manned technical support facilities. It is also linked by a double track railway to the national railway networks.

The container terminal was under expansion, following an investment of around US\$600 million by the Hong Kong based company, Hutchison Port Holdings. The Hong Kong based company won the tender after surpassing a first offer made by COSCO Pacific, which offered around US\$500 million for the development of the container terminal. However, the impact of the global financial crisis it obvious: in 2009 Hutchinson didn't find the money to pay for the concession of the port and the project fell into troubles. Here lies an important PPP opportunity. Located in the north of Greece, the port of Thessaloniki is certainly interrelated with further economic development of the Balkan countries and their accession to the EU, especially in terms of transit cargo. Additionally, the port of Thessaloniki has one of the largest passenger terminals in the Aegean Sea basin that is now under improvement; another aim could be to turn Thessaloniki into a major tourist port for cruising in the eastern Mediterranean. Extremely important is also the oil and gas terminal. It has a total storage capacity of 500,000 cubic meters and an annual traffic capacity of 9,000,000 tons per year. Finally, the cargo terminal has a total storage area of approximately 1,000,000 square meters and specializes in the handling of wide cargo that ranges from metal products, ore, chemical products (i.e. chloroform, asphalt, chemicals and mineral oils), general cargoes, timber, bulk cargoes and food products. This terminal also serves as a major transshipment hub in the Aegean-Black Sea area being used by other Balkan countries such as Serbia, FYROM, Albania and Montenegro. However, major improvements are needed and again the question that arises is about financing in order to complete and/or upgrade the current infrastructures.

## **CONCLUSION: PPP CAN PROVIDE THE SOLUTION FOR EXPANSION**

The contemporary world is well interconnected and there is an obvious trend towards economic globalization (P. Streeten, 2001). Clearly, the Mediterranean Sea and especially its eastern section, hold an important role within the wider context of international relations. There is a very simple explanation why: its key-role in the wider framework of the contemporary maritime traffic system. As already pointed out briefly, there are two important sea straits in the region: The first one is the Dardanelles, through which the Mediterranean Sea (and the Aegean Sea) communicate with the Black Sea and all the countries whose coasts are on the Black Sea, while for the latter the access to the open

(warm) seas is secured. The second gate under discussion is the Suez Canal, in Egypt. The specific technical infrastructure allows shipping to travel from the Mediterranean directly to the Indian Ocean (via the Red Sea and the Gulf of Aden). All these regions form in line a very important maritime corridor that provides the shortest connection between Europe and Asia. (P. Siousiouras & D. Dalaklis (b), 2009).

It was already pointed out that nearly four fifths of international trade is being conducted by sea. The configuration of the Earth facilitates sea transport since three quarters of the planet's surface is covered by sea or lakes. With the exception of the North and South poles, the transport of passengers and goods by sea-going vessels is possible to and from any part of the world. This fact by itself constitutes a comparative advantage for sea transport against air or land transport. Current numbers of port-visits in Greece are extremely high. First of all, there numerous island that take advantage of shipping in order to connect with the main land mass of the country. Furthermore, geography is favoring Greece; as the interconnection point of three different continents, it is very well situated to be a hub for international trade. Last but not least, the country's EU membership is a very valuable asset and Greece should aim to transform into the point of entry for all eastern European commerce transported by sea. However, more infrastructures (and therefore more money) are needed.

PPPs have gained importance as vehicles to finance public infrastructure across Europe in the past. However, from 1990 to 2009 nearly 1,400 PPP deals were signed within the EU, representing a capital value of approximately €260 billion. Since the onset of the financial crisis in 2008, estimates suggest that the number of PPP deals closed has fallen dramatically. Expectations are that with the recovery of the Greek economy port visits within the Hellenic Republic will rise. The current infrastructures, especially those of Piraeus and Thessaloniki (the largest and busiest ports of Greece), are in need of expansion. PPPs can provide the perfect tool for Greek port-authorities to expand their capabilities; both afore mentioned entities have retained their association with central government, since the Greek State owns 74% of Piraeus and Thessaloniki Port Authorities shares, both listed on the Athens Stock Exchange. Needless to mention, with the economy still in reception, the necessary investments are a very difficult task for the government. Partnerships with the private sector and joint schemes with capable constructing companies are an obvious opportunity and probably the best way out to get of the financial deadlock. Greece should grab the opportunity and pose as the main gate to serve the commerce of Asian countries. The joint venture with the Chinese company COSCO in the port of Piraeus should be vied as an interim steps and more efforts in the similar direction are needed.

Both cargo and cruise ships visits in large Greek ports are expected to rise in the near future. However, the most significant change in overall traffic patterns in the Mediterranean in the coming years will be the development of export routes for crude oil from the Caspian region, which is

currently shipped predominantly via Black Sea ports through the Bosphorus. If that is the case, high policy decision for traffic management in the Aegean Sea and especially in the vicinity of its choke point become a high priority in order to diminish the chance for a catastrophic accident to happen. Again, investments in high end technologies are needed. Even today, various efforts to improve navigation safety all around the Greek seas are currently in progress. For example, the government has launched an effort to provide reliable Vessel Traffic Services (VTS) and monitoring the various high density traffic areas of the Hellenic Republic. However, the Hellenic VTS can provide a helping hand for seafarers only in a small number of choke-points and cover a rather limited area; future expansion of the system in other busy locations is needed in the near future, with the port of Thessaloniki standing out. (D. Dalaklis, P. Siousiouras & N. Nikitakos, 2009). In any case, the government should work along the private sector to create an added-value situation; at the same time PPPs can achieve introduction of the new navigation safety services with the minimal cost for the country.

Finally, as a general recommendation, the future associated procurement to create larger and with better capabilities harbors and ports within the Hellenic Republic should follow the partnership model and not the classical client-provider one, within higher costs are usually involved. In conclusion, PPP versions of expanding the infrastructures in the whole Greek maritime domain are attractive methods for technical works construction or services provision. It is a concrete tool/methodology, endowed with a lot of innovative regulations to ensure the successful outcome (Her Majesty's Stationery Office, 2000). However, in the long run, government and private partnerships should not be seen as a panacea; they should be introduced only in the case that they clearly add value to the effort. The obvious conclusion is that with the Greek economy still in recession, the necessary framework that will allow the commencing of the technical works can be found only through partnerships of the government controlled port-authorities and large in size constructing companies of the private sector. These partnerships should be considered as a win-win situation for all parties involved. They provide an ideal opportunity for expanding infrastructures and/or services towards shipping without adding more number to the already enormous government-guaranteed debt.

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The current study becomes more important, on account of the very recent development in the Black Sea. The Crimean Peninsula, on a basis of a referendum, held in 16.03.2014, became a territory of the Russian Federation. This peaceful revolution of the majority of the inhabitants of the Peninsula, belonging to Ukraine, has not been officially recognized; but it has highlighted the strategic role of Russia. Last but not least, it has confirmed the multi-pole character of the current international stage, exemplified by commercial investments of China in the port of Piraeus and geopolitical changes of

status quo in favour of Russia. So, the expansion of Greek ports is potentially combined with the expansion of the Russian superpower, even against international law...

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## DEVELOPMENT AND SUSTAINABLE TOURISM AS CHOICE FOR THE FUTURE: THE CITY OF VENICE

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### ABSTRACT

The sustainability of development expressly covers the guide principles of the European Union and represents a ground to find solutions to deal with the complexity of the current socio-economical scenery. This principle is also valid for tourism, which itself becomes one of the key sectors to set up a strategy, leading to a sustainable development of the land. Sustainable tourism is a form of tourism which involves being conscious of the potential environmental, economic, and cultural impacts of tourism. Tourism finds in environmental, artistic and cultural factors of attractiveness the lever of its main competitiveness; the sustainability of its use can represent an extraordinary challenge for the general upgrading of the natural and urban environments on which tourism finds a fertile ground for its development. To reach this target, the correlation between the carrying capacity, which is the natural ability of an ecosystem to produce in a stable manner the necessary resources for the species that inhabit it, and the critical natural capital, which is the minimum necessary level for the biological reproducibility of the ecosystem, the amount of pollution and waste that the planet is able to withstand, should not be neglected. This paper sets as objective the analysis of the most critical aspects related to these topics and the proposal of a concrete model of a sustainable tourism consumption, competitive and upgrading for the territory, assessing the application to a concrete case: the city of Venice.

**Keywords:** *sustainable tourism, sustainable development, competitiveness, green economy, carrying capacity, strategic plan, Venice, urban implications.*

### INTRODUCTION

The concept of sustainability derives from the scientific and natural literature, which defines sustainable management of a resource if, once its ability to regenerate is known, its exploitation does not exceed beyond a certain threshold (Lanza, 2006). Being sustainable, therefore, means being able to

live within the carrying capacity of the system which you are part of, i.e. not breaking the dynamic balances that maintain the life. In the literature, the theme of sustainability usually refers to the renewable natural resources; for exhaustible resources, rather than sustainability, it would be correct to talk about the times and conditions of the resource's optimal exploitation (Spangenberg & Valentin , 1999). To set up sustainable development strategies, it is necessary to decide what should be the level of protection afforded to the natural resources and whether there might be a form of compensation between the different types of capital. From the economical point of view, we progressively became aware of the fact that the global development considered in a classical sense (i.e. linked exclusively with the economic growth) would soon cause the collapse of the natural systems and has led to the conclusion that the development is real if only the quality of life improves in the long term, so it is not only about economy and environment, but also about social development. (Lindberg and Johnson , 1997). Therefore, a wider concept of sustainability arises, which implies the ability of a development process to sustain over time the reproduction of global capital composed of the environmental, economic and human/social capital (Lombardi, 2011).

For tourism , a sector of primary importance in our country, the debate about sustainability is recent, but if properly set, may account for the close relationship between the strategies for the sustainable development and the governance of complexity. In relation to the socio-environmental limits of a certain tourist resort, we identify the carrying capacity, which involves pervasively different aspects: economic, infrastructural, social, environmental, which can in turn give rise to different impacts.

Tourism should undertake the path of sustainability in a strong way, in order to safeguard these natural, environmental, artistic and cultural factors that form the basis of its prospects development. This applies particularly for Italy, which should do a sustainable tourism the main competitive levers of its country's system. Venice is a city that has, in addition to a large number of tourists, ecosystems and habitats of a certain fragility and where there is, at the same time, an artistic-cultural heritage of great cultural value. It should be able to promote processes of retraining and modernization which enables it to deal with the contradiction that the tourism, inevitably, brings with itself. The goal of this paper is to understand if the city is dealing with the phenomenon in a effective and sustainable way, assessing whether the actions taken so far can be considered truly effective and valid for purpose to pursuit of a sustainable tourism development. The considerations will be made by presenting the main features of the tourism demand and a focus on some aspects related to the carrying capacity and the pressure exerted by the tourism on the City

## **SUSTAINABILITY, A MULTIFACETED CONCEPT.**

The first definition in temporal order of sustainable development was the one contained in the Brundtland report in 1987 and later retaken from the World Commission on Environment and Development (WCED), according to which: "The development is sustainable if it meets the needs of the present generations without compromising the possibility of the future generations to meet their needs." The central element of this definition is the need to search a equity of an intergenerational type: the future generations have the same rights of the present ones. In the second analysis, can be also seen a infragenerational equity, i.e. people belonging to different political, economic, social and geographical realities within the same generation have the same rights. This statement introduces the theme of sustainability between production factors. The production of goods and services of a country is made possible by the use of physical (capital represented by machines), human (labour force) and environmental production factors. The proportions of these factors depend on many aspects: the availability of certain technology, the development level of the country, the costs of various factors. Within this optical the concept of substitutability takes place, about which we can consider four positions:

- Very weak sustainability (VWS) (position of abundance)
- Weak sustainability (WS) (accommodating position)
- Strong sustainability (SS) (community position)
- Very strong sustainability (VSS) (radical position)

If for the proponents of the weak sustainability a growth without limits is admissible weak and in general the growth itself is considered as a positive factor, for the supporters of the strong sustainability the economic growth is seen as an element to curb and control. There is a point beyond which the industrial activities, pollution and other human activities, if carried out in a non-responsible way, can cause not remediable damage not only to the environment that surrounds us, but to the entire ecosystem (carrying capacity). The policies oriented to an environmental and territorial improvement have been done by man for man, in a long term vision. Here is, therefore, the need to guarantee conditions of human welfare (security, health, education, etc.)



## SUSTAINABLE TOURISM

The tourism development often takes us in front of a paradox: on one hand can contribute to achieve socio-economic and cultural goals, economically justifying the conservation of natural and historical-cultural resources and make a place unique, on the other hand it can lead to their degradation and loss of attractiveness, if the use of resources is not adequately managed. The carrying capacity of a location was defined as: "the number of people bearable for an ecosystem, which is a set resources naturally presented in particular locations, before it deteriorates" (Gland, 1991). To achieve a point where you do not exceed the carrying capacity, we must come to a compromise between the intention to minimise the environmental damage and maximizing the use of the environment, therefore, as a resource. By analysing the tourism bearable capacity, it is possible to focus on different aspects: economic (potentiality and strategies to develop tourism market), the infrastructural (constraints to development connected to reduced receptivity or offer other services), social (compatibility of the tourism presence with the local population), environmental (resource consumption and pressure on land) (Spangenberg, J. H., 2000). Development policies oriented towards demand segments considered preferential for the offer should be defined, which try to promote a conscious behaviour from the tourists. To analyse the effects of tourism development on the social relationship between the visitors and residents, a scholar, G.V. Doxey (1975), offers an interesting contribution; he identifies a first phase (called euphoria phase), in which the few lucky tourists have peacefully entered the host society sharing lifestyle, a second one (apathy phase) in which there is already the conflict, the number of tourists grows and the two groups (tourists and residents) are dividing the existing infrastructures, despite, however, there is still a contact between them. Then there is a situation of separation (irritation phase) characterized by a local community numerically now lower than the one of the tourists. The latter get their own infrastructures and have contact with the residents through established channels only. In fourth time (phase antagonism) we see a reversal of roles as it ends up that the interests of the tourists dominate on those of the residents, who becomes at the service of tourists without no more than an own tradition. Some propose a situation that goes beyond the fifth phase, where there is no host society, nor it has ever existed. The reference, in this case, is the forms of "artificial tourism". The tourism system, presenting as a complex and cross phenomenon, does not make sufficient self-regulating market, so that the dynamics are controlled, but it requires a public intervention and a system of policies that controls the complexity and manages the equities. The different components presented in the destination must act in a logic of the system, identifying common goals to pursue, albeit there are a series of conditions and constraints of exogenous nature, which can heavily influence the construction and operation of the system itself. It is difficult to propose concrete models of sustainable tourism, which agrees the different actors of the supply and

the demand avoiding as much as possible the undermined interest of the parties. It is well known, in fact, that supply and demand tend to perpetuate actions aimed at the satisfaction of their own goals, but the important is to find a balance, a meeting point, which allows both parties to reach their own purposes, in mutual respect.

## **VENICE , THE STRATEGIC PLAN AND A MODEL FOR SUSTAINABLE TOURISM**

The economic growth, translated also in a higher income per capita, has meant that a more and more increasing number of people have the possibility to spend a portion of their time and their income available in tourist activities. This fact has in fact placed under pressure several areas of the world and Italy, as Venice. The city, therefore, has accrued the awareness of the importance to develop a strategic plan that promotes processes of retraining and modernization in favour of a stronger and more adequate positioning of the Venetian system in the economic, social and territory processes of the North East and Europe. The purpose is to make a city characterized by high quality of life of its inhabitants (in its various aspects, relational, cultural, etc.) and its structure economic and environmental, but also to create a shared and participated process, whose purpose is to design, through a meeting point between public and private actors, future shared choices. The Veneto Region recognizes Venice and the lagoon as a tourist thematic and territorial system as territorial homogeneous terms of tourist types and specialized in terms of presence tourist resources, capable of standing the development and the promotion of an integrated range of large and consistent tourism products (Regional law development and sustainability of tourism in Veneto, 2013). The difficulty in creating a model of sustainable development for Venice lies in the complexity of the territory and in the correlation between its variables. A choice that can bring benefits and solve certain situations can rise to new problems or aggravate others already existing.

## **METHODOLOGY**

To achieve the present goal, the official statistics have been analysed to assess the main actions and policies taken so far for the management of sustainable tourism in the city to determine whether they can be considered really effective and valid for the pursuit of a sustainable tourism development. The increase or decrease of the tourist flow (*stock*) and their distribution throughout the year will be evaluated, as well as the strategic plan that the city of Venice has prepared.

The city of Venice has, in fact, drawn up a strategic plan, "Strategic Plan Of Venice 2004-2014", i.e. a process of a programmatic elaboration oriented to generate those decisions and those actions that are crucial to realize the vision of the desired future from the main social and economic factors of the city.

It promotes processes of retraining and modernization in favour of a stronger and more adequate positioning of the Venetian system in the economic, social and territory processes of the North East and Europe. In its final form, the document is divided into three parts:

- Reading Guide: it presents the document highlighting the additions and changes made to the document after the update of some analysis, of the outcome of meetings with privileged actors of the local system and, more particularly, of the outcome of the Project Committees.
- Introduction: it includes the content of the project and draws all the characteristic points. In particular, it recalls the local experience about the strategic approach to the development issues, states the methodology adopted by relating it to the current complexity of the structure management of the local Venetian system, illustrates the points characterizing the project and the audit trails of the choices made.

The Strategic Plan of Venice 2004-2014: develops contents of the structural Conditions and the strategic Lines and the contents of the strategies and policies related to them.

Valentin and Spangenberg (1999) have formulated a framework formed by four dimensions thanks to which it is possible to organize the sustainability indicators of a given territory. As indices, in addition to the 3 Ps (people, profit, planet), the institutional perspective as focal vision has been included. The prism allows to establish some indicators of sustainability and standards for the planning and management of the local community (Cottrell & Cutumisu, 2006; Cottrell & Vaske, 2006; Cottrell, Vaske, & Shen, 2007; Cottrell, Vaske, Shen, & Ritter, 2007). The indicators are biophysical, social, management, as well as for the other conditions of general interest in relation to the issue reported (Miller, 2001).

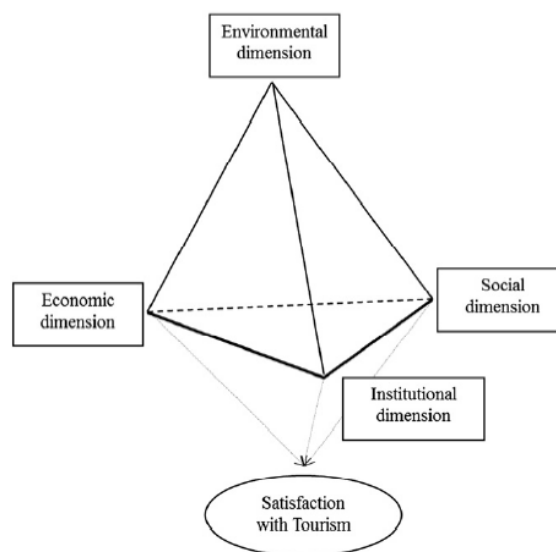


Figure 9. *THE SUSTAINABILITY'S PRISM - Spangenberg & Valentin, 1999*

## RESULTS

After World War II the tourism phenomenon in Venice's historic centre has grown considerably:

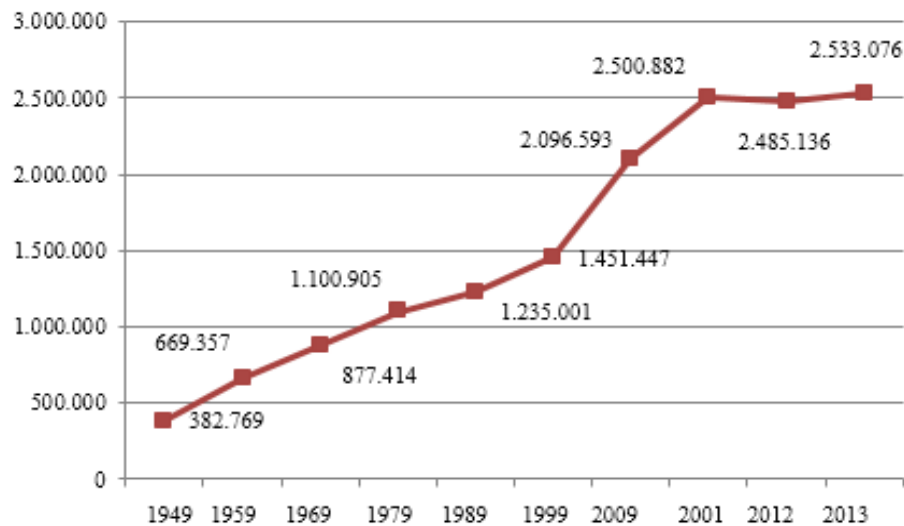


Figure 10. Tourist arrivals in the historical center of Venice from 1949 to date

Data Source: Web Site [www.comune.venezia.it](http://www.comune.venezia.it), Statistics and Research Section

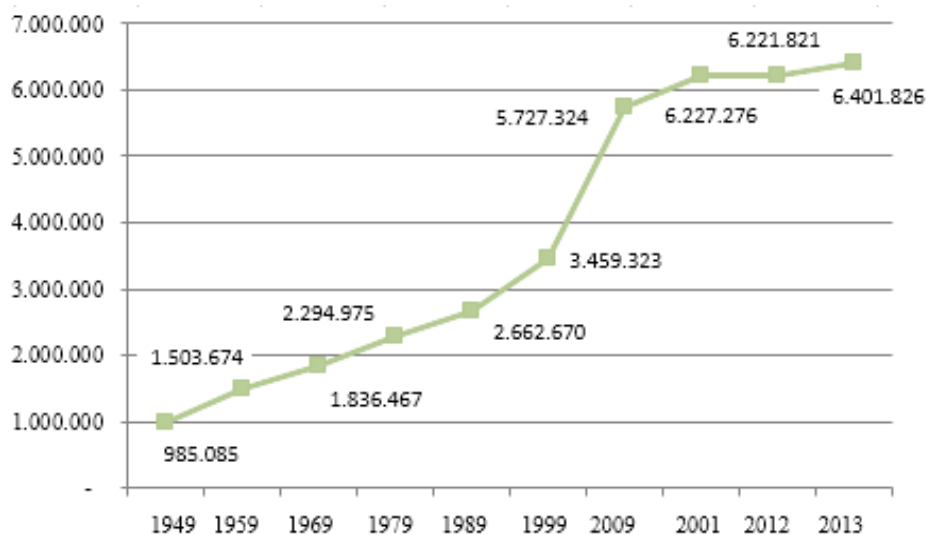


Figure 11. Tourist attendance record in the historical center of Venice from 1949 to date

Data Source: Web Site [www.comune.venezia.it](http://www.comune.venezia.it), Statistics and Research Section

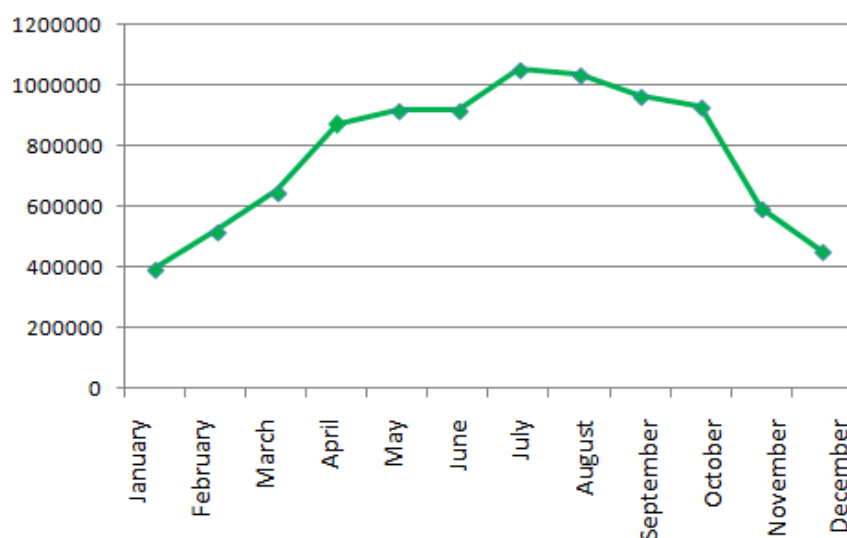
The origin of the tourists coming to Veneto Region can count on 64.8% of foreigners (Statistical Report, 2013), while each 85% of foreigners visit Venice and only 15% of Italians (Tourism in the City of Venice, 2011), as reported in Table 1.

This means that the capital of the lagoon has an attraction capacity in the foreign market that is certainly superior to that perceived at a national level.

Nationality	Arrivals	Presences
Americans	498963	1051088
Italian	463055	1082744
French	314053	915769
English	246915	664332
Germans	201486	564936
Japanese	178681	270287
Chinese	162088	233898
Spanish	159008	363129
Brazilians	123210	232465
Australians	122937	284840
Russians	81698	190552
Indians	29177	58305

Table 6. *Elaborations Department Tourism on Apt Data, 2012*

The first foreign market in Venice was formed by U.S. tourists, who represent approximately 12.7% of tourists, followed by the French (11.1% of presences in 2012), the English and German (8.7% of presence in 2012) and by the Spanish (4.4% of presences in 2012). Compared to 2011, in 2012 a significant increase of arrivals from China, Russia and the UK (respectively 17.8%, 12.5% and 11.3%), while there has been a sharp decline in arrivals from Spain and Italy (respectively 20% and 11.6 %).

Figure 12. *Elaborations Department of Tourism on Apt Data, 2012*

In the solar year tourist flows appear to be very high in the spring and summer. The months in the year 2012 that have registered the increased number of tourists, were July and August, while the months with a smaller number of tourist presences were in the winter, especially in January and December.

The main effects that these tourism inflows cause to the City can be summarized as:

- Decrease of the ratio quality/price of the main products and services;
- Increase in the cost of living for residents;
- Concentration of the accommodation structures in the historic centre;
- Congestion of the area and public transportations.

The City has developed some tools to try to limit the phenomenon, for example, it is attempting to distribute events of particular tourism call throughout the year (to limit the overlap in the months of high season), and has created an ad hoc instrument: through the municipal portal *venice connected* you can book the means for public transport, parking lots, visits to museums, access to the Casino and taking advantage of several good discounts if you decide to book in a date considered “low affluence”, as indicated by attached calendar.

Some other Italian cities ( for eg Milan), provide the obligation to use this type of instrument to visit several attractions of particular art appeal, such as the Cenacolo Vinciano.

## CONCLUSIONS

The city of Venice is a confirmed pole of tourist attraction internationally recognized. As shown, the high tourist flows throughout the year makes the land “consumption” extremely elevated. Therefore it is necessary to plan about sustainable policies in order the long period competitiveness, otherwise an over exploitation could cause environmental damages that can never be repaired.

However this setting cannot ignore that the tourism is a key economic sector for Italy and for Venice, not only from the point of view of the turnover *tout court* but, given the particular Italian economic situation, especially in the field of employment. Within this process, it is important to remind the need to combine housing and tourism, so as to ensure the liveability of the inhabitants of the city.

The tourism in Venice will develop and will be more sustainable at the same time only if a systemic view of the sector will be accrued and private intervention and entrepreneurship will operate in synergy with the public administration.

In particular, it would be desirable that the city increasingly develops measures that would allow a better distribution of tourism flows throughout the year, in order to reduce the excessive congestion in the centre of the City, especially during the summer months.

Finally, should not be underestimated that tourists arriving in Venice could also be potential visitors of the near local realities rich in history and culture (for example, the Venetian villas).

In recent years Venice, recognizing the level of pressure that the tourism causing to the territory and to its inhabitants, has attempted to invest in interventions that would allow a better management of the arrivals in town; anyway this does not seem to be sufficient to restore the balance. Sustainable tourism, if considered concrete cornerstone of policies and strategic choices of the City, will be an asset, particularly in the medium-long period.

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- [www.veniceconnected.it](http://www.veniceconnected.it)
- [www.vivaticket.it](http://www.vivaticket.it)



# EFFECTS OF TRUST, SATISFACTION, ALTERNATIVE ATTRACTIVENESS AND RESISTANCE TO CHANGE ON ATTITUDINAL AND BEHAVIOURAL LOYALTY<sup>1</sup>

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## ABSTRACT

This study aims to explore effects of trust, satisfaction, alternative attractiveness and resistance to change on brand loyalty (attitudinal and behavioural) in the Turkish GSM sector. In this study commitment is referred to as attitudinal loyalty which leads to behavioural loyalty. Triangulation is chosen as a method of inquiry. A conceptual model was developed after literature review and exploratory interviews and piloted on a sample of 70 participants. Finally, a quantitative research was conducted on a sample of 505 mobile subscribers. Drop and collect and social media (Facebook) were used for data collection. After running exploratory factor analysis on the data and assessing factor structure, measurement model and structural model were tested by SEM. Results indicated that the proposed research model was acceptable in general. Trust and resistance to change were found to be positively associated with commitment while alternative attractiveness and satisfaction were not. Commitment was also found to be positively and significantly related to behavioural loyalty.

**Keywords:** *brand trust, brand satisfaction, alternative attractiveness, resistance to change, commitment, behavioural loyalty*

## INTRODUCTION

Supporting the idea that economic reasons are not the only reasons for repeated purchase, but there is more behind consumer loyalty such as emotional attachment and social norm, this study mainly aims to explore the factors motivating consumers to maintain their relationships with their current service provider. As one of those industries facing high subscriber churn rate, GSM service providers are also in need of better retention strategies in order to develop and maintain good relationships with their subscribers. Therefore, it is essential to identify factors motivating the subscribers to develop positive attitude towards a GSM service provider. By identifying these factors, service providers can be able to

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achieve higher levels of brand loyalty. Brand loyalty has two sub-components, attitudinal and behavioural. In this study, attitudinal loyalty is referred to as brand commitment. There is a lack of studies that explore antecedents of brand commitment and test its effect on building customer behavioural loyalty. This study intends to bridge this gap by reviewing the related literature and providing findings from two-phased field study which was undertaken in a highly competitive market, Turkey. During last two years over 1.6 million subscribers have switched from one to another three global GSM operators ([www.btk.gov.tr](http://www.btk.gov.tr)).

## CONCEPTUAL FRAMEWORK

In earlier studies loyalty was regarded as repeated purchase only. Defining loyalty as “the biased behavioural response expressed towards a brand over time as a function of psychological processes” (Jacoby and Chestnut, 1978), later studies have come to the conclusion that loyalty should be handled as attitudinally and behaviourally (Enis and Paul, 1970; Mathieu and Zajac, 1990; Morgan and Hunt, 1994; Dick and Basu, 1994; Oliver, 1999; Chaudhuri and Holbrook, 2001; Uncles et al., 2003; Kim et al., 2008; Kimmel, 2010). Behavioural loyalty is considered to be defining loyalty in terms of repeated purchase (Enis and Paul, 1970; Chaudhuri and Holbrook, 2001; Kim et al. 2008). On the other hand, attitudinal loyalty is considered to be defining loyalty in terms of psychological factors such as preferences, intentions, commitment arising from these intentions, and value dimensions (Chaudhuri and Holbrook, 2001). Defining brand loyalty as a pattern of repeated purchase with a positive attitude towards the brand, Kimmel (2010) indicates that brand loyalty consists of two components as repeated purchase behaviour and commitment attributed to a strong attitude or liking for the brand.

Commitment is defined as pursuing a consistent line of activities in a sequence of varied situations (Becker, 1964) in sociology literature. Commitment is of the Social Exchange Theory (SET) origin (Cook and Emerson, 1978) which requires that something has to be given in return of something else. Supporting the aforementioned idea in the SET, commitment in marketing is defined as a consumer’s belief to maintain rather than terminate a relationship likely to provide him/her with functional and emotional benefits (Geyskens et al., 1996).

Commitment is usually subtyped as affective commitment, continuance (calculative) commitment and normative commitment (Allen and Meyer 1990). Affective commitment is related to emotional attachment of the customer to the service provider with a feeling of remaining in stable exchange relationships via social ties and intimate relations they create with the relationship partners (Geyskens et al., 1996). Calculative commitment on the other hand is concerned with the feeling of being locked into the service provider (Bansal et al., 2004) which arises from the evaluation over gains and losses that seem to occur in case of a termination of a relationship (Geyskens et al., 1996). Cost perception in

this commitment type may be arising from the costs related to money, time and/or effort. Last and least studied commitment type, normative commitment is referred to as a sense of obligation (Bansal et al., 2004) with a sense that consumers remain within a service provider because they feel this is the right thing to do (Hur et al., 2010). Allen and Meyer (1990) distinguished commitment types with a useful classification suggesting that affectively committed person remains because s/he wants to, calculatively committed person remains because s/he needs to and normatively committed person remains because s/he ought to.

## METHODOLOGY

Although previous studies are primarily conducted on the commitment of employees in organizational behaviour, the concept of commitment can also be expanded to marketing by investigating the relationship between service provider and customer. Referring commitment to as attitudinal loyalty, this study aims to investigate brand commitment and its antecedents.

### *Research design*

In this study, triangulation including relevant literature review, qualitative and quantitative phase is chosen as a method of inquiry. After reviewing literature, a conceptual model including service quality, involvement, switching costs, bonding, satisfaction, trust and alternative attractiveness as independent variables affecting commitment and loyalty was developed. Then ten semi-structured face-to-face exploratory interviews were conducted to clarify issues and test model validity. Interview results indicated that the model had validity, but two additional factors were also mentioned: brand image and resistance to change. However, service quality, switching costs, involvement, bonding and brand image were excluded from the model regarding nonresponse bias and simplicity in the model. The final research model is illustrated in the Figure-1.

### *Hypotheses developing and research model*

*Trust* is a significant antecedent of commitment (Moorman et al. 1992; Morgan and Hunt, 1994) There is a plenty of studies indicating that trust is positively associated with affective commitment (De Ruyter and Wetzels, 1999; Bansal et al. 2004; Cater and Zabkar, 2009; Cater and Cater, 2010; Fullerton, 2011; Chang et al, 2012; Bloemer et al., 2013). In most studies, trust has been found to be negatively associated with calculative commitment (Geyskens et al. 1996; De Ruyter and Wetzels, 1999; Gounaris, 2005; Cater, 2007; Chang et al, 2012). However, in their study Cater and Cater (2010) divided calculative commitment as; positive calculative commitment suggesting the value-based one, and negative calculative commitment suggesting the feeling of being locked-in. Authors indicated that trust is positively associated with positive calculative commitment and negatively associated with negative calculative commitment. Therefore, it can be argued that subscribers who are calculatively

committed to a GSM service provider find it worth switching for cost perceptions on the condition that they have the feeling of trust. Lastly, normative commitment indicates that acceptability or non-acceptability of a switching behaviour (Bansal et al., 2004) influences customer's decision on the act of staying or leaving. Therefore, trust positively affects normative commitment that is self-based or socialization based feeling of obligation (Cater and Cater, 2010; Fullerton, 2011). Thus;

H1: Customer trust positively affects customer commitment to the service provider.

H1a: Customer trust positively affects customer affective commitment to the service provider.

H1b: Customer trust positively affects customer calculative commitment to the service provider.

H1c: Customer trust positively affects customer normative commitment to the service provider.

*Satisfaction* is considered as a significant antecedent of loyalty (Mittal et al., 1998; Mittal and Kamakura, 2001; Lin and Wang, 2006; Tung, 2010) and a primary driver of retention (Gustafsson et al., 2005). As Hennig-Thurau (2004) also indicated, commitment is influenced by customer satisfaction. And, satisfaction is found to be positively associated with affective commitment (Cater and Zabkar, 2009; Fullerton, 2011; Nusair et al, 2011). On calculative commitment, Cater and Zabkar (2009) and Nusair et al (2011) found negative effect of satisfaction whereas Wetzels et al. (1998) found positive effect. Based on a view that the customers feel a moral obligation to maintain their relationships with current providers so long as they are satisfied with the service offered (Cater and Zabkar, 2009), it may be supported that satisfaction positively influences normative commitment. Therefore;

H2: Customer satisfaction positively affects customer commitment to the service provider.

H2a: Customer satisfaction positively affects customer affective commitment to the service provider.

H2b: Customer satisfaction positively affects customer calculative commitment to the service provider.

H2c: Customer satisfaction positively affects customer normative commitment to the service provider.

*Alternative Scarcity* is often related to calculative commitment (Anderson and Weitz, 1992; Dwyer et al, 1987; Allen and Meyer, 1990; Morgan and Hunt, 1994; Bansal et al, 2004; Fullerton 2003; 2005; 2011). Regarding the fact that the more attractive the alternatives become, the less affectively and calculatively committed the consumers become. It can be argued that alternative attractiveness is negatively associated with affective and calculative commitment. Thus;

H3: Alternative attractiveness negatively affects customer commitment to the service provider.

H3a: Alternative attractiveness negatively affects customer affective commitment to the service provider.

H3b: Alternative attractiveness negatively affects customer calculative commitment to the service provider.

The relationship between alternative attractiveness and normative commitment is not tested in the literature reviewed. Therefore, this relationship is tested on a positive basis.

H3c: Alternative attractiveness positively affects customer normative commitment to the service provider.

*Resistance to Change* occurs when consumers have a feeling of being locked into relationships or inability to leave, and keep current relationships rather than making changes (Beatty et al, 2012). Beatty et al. (2012) found that resistance to change positively affects normative and calculative commitment and no relationship with affective commitment. It is hypothesized to see whether resistance to change is positively associated with affective and normative commitment. However, in the light of the exploratory interviews findings, the effect of resistance to change on calculative commitment is hypothesized negatively in this study. The reason for this is that during interviews, subject indicated that they disregard external factors that lock them in so long as they express self-resistance to terminate their relationship with current service provider. Thus;

H4: The more resistant the customer is towards changes, the more committed to the service provider s/he becomes.

H4a: The more resistant the customer is towards changes, the more affectively committed to the service provider s/he becomes.

H4b: The more resistant the customer is towards changes, the less calculatively committed to the service provider s/he becomes.

H4c: The more resistant the customer is towards changes, the more normatively committed to the service provider s/he becomes.

Dagger et al. (2011) found that commitment positively affects loyalty. Dick and Basu's (1994) point of view implies that loyalty consists of three dimensions: service retention, additional purchase of a service and positive word-of-mouth. From this point of view it has been concluded in many studies that there is a positive relationship between affective commitment and service retention (Garbarino and Johnson, 1999; Morgan and Hunt, 1994; Cater and Zabkar, 2009; Fullerton 2003, 2011;). On the other hand, calculative commitment is found to be positively associated with service retention in some studies (Cater and Zabkar, 2009; Hur et al. 2010; Fullerton, 2011). As another loyalty output, WOM is

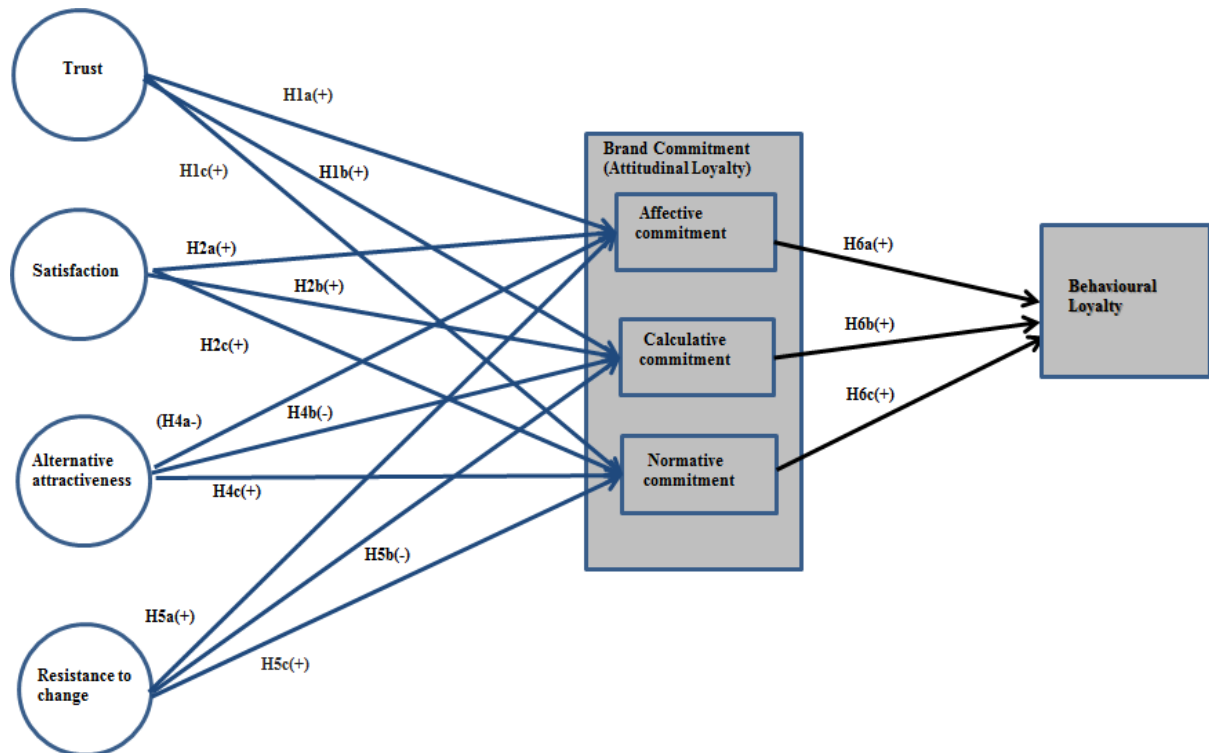
found to be positively related to affective commitment while it is negatively related to calculative commitment (Nusair et al, 2011). On positive word-of-mouth basis Beatty et al. (2012), Hur et al. (2010) found positive effect of affective commitment on positive word-of-mouth. Thus;

H5: Attitudinal brand loyalty (brand commitment) positively affects behavioural loyalty.

H5a: Affective commitment positively affects behavioural loyalty.

H5b: Calculative commitment positively affects behavioural loyalty.

H5c: Normative commitment positively affects behavioural loyalty.



**Figure 1.** Final Research Model with Hypotheses

### Sampling

When collecting qualitative data to delve into the understanding of loyalty among subscribers and factors motivating them to maintain their relationships with their GSM service providers, the participants were selected according to their gender, occupation and length of usage. Since these were exploratory interviews, they were kept short taking around 20 to 30 minutes. All interviews were audio taped and transcribed. Last phase of the study was to test the model with quantitative data obtained from the survey whose items were adapted and developed from both existing literature and exploratory interviews. Convenience sampling was chosen as a method of sampling for quantitative research phase. Data was collected from seven great municipalities in Turkey via drop and collect technique as well as a survey conducted on social media (Facebook) from mid-June, 2013 to the beginning of September, 2013. Sample profile of quantitative data is identified as young, single

professionals most of whom are between the age of 23-35 and having an undergraduate degree. Most of the participants prefer postpaid line to prepaid line paying for about 20\$ per month.

#### *Content validity and pilot study*

To assess content validity of the survey adapted from relevant literature and interviews conducted on ten people in the first phase of the study, two academics who are involved in the field were asked to evaluate the questionnaire form in terms of the extent to which the items, tasks or questions adequately represent the construct's domain. First evaluation required some translations to be revised and some of the constructs to be excluded from the questionnaire for minimizing non-response bias of the participants and simplifying the model. After ensuring validity evidence based on content, a pilot study was conducted on 70 participants to see how well the items were translated and how clear they were in the eyes of participants. Pilot study required some items to be revised as well as excluding some of them from the questionnaire. After incorporating pilot study findings, the final form of questionnaire was subjected to data collection which resulted in 505 usable responses.

#### *Data analysis and findings*

After purifying the measures with an initial exploratory factor analysis in SPSS by dropping some items causing low internal consistency and having low factor loadings or low correlations, final structure of the research model was achieved. Internal consistency reliability was ensured by testing Cronbach's alpha coefficients of constructs which were around the respectable value range of 0,70-0,80 (DeVellis, 2012:108). The item numbers and other relevant values are presented in the following Table-1.

Construct	Factor Loadings	Variance explained	Cronbach's alpha
Satisfaction; adapted from Hennig-Thurau, T. (2004) (4 items)	0,85 to 0,92	77%	$\alpha=0,90$
Alternative Attractiveness; adapted from Bansal et al. (2004) (4 items)	0,72 to 0,90	69%	$\alpha=0,85$
Trust; adapted from Morgan and Hunt (1994) and exploratory interviews (8 items)	0,67 to 0,88	62%	$\alpha=0,91$
Resistance to change; adapted from Oreg (2003) (7 items)	0,71 to 0,85	59%	$\alpha=0,89$
Commitment; adapted from Beatty et al. (2012) and exploratory interviews (7 items)	0,78 to 0,92	83%	$\alpha=0,84$
Behavioural loyalty; adapted from Zeithaml et al. (1996) and Beatty et al. (2012) (5 items)	0,74 to 0,90	68%	$\alpha=0,88$

**Table 1.** Findings of Exploratory Factor Analysis and Reliability Values of Constructs

Table 2 presents the correlations, means, and standard deviations for the constructs included in the final research model. Corresponding the construct's domain, having all constructs statistically significant correlation with behavioural loyalty is a considerable result. Regarding the fact that current research was conducted on such an industry like GSM industry where subscribers are expected to behave in a cost sensitive manner, having seen calculative commitment type with higher mean score than other two types is also another notable result.

Construct	1	2	3	4	5	6	7	8
1.Satisfaction								
2.Alternative attractiveness	-0,279**							
3.Trust	0,636**	-0,230**						
4.Resistance to change	0,232**	-0,042	0,316**					
5.Affective commitment	0,372**	-0,105*	0,497**	0,507**				
6.Calculative commitment	0,343**	-0,202**	0,435**	0,047	0,208**			
7.Normative commitment	0,256**	0,021	0,390**	0,611**	0,725**	0,191**		
8.Behavioural loyalty	0,577**	-0,329**	0,672**	0,313**	0,470**	0,500**	0,359**	
Mean	3,25	2,42	2,86	2,95	2,29	3,07	2,09	3,35
Standard Deviation	0,90	0,81	0,83	0,87	1,05	1,05	0,96	0,88

\*\*significant at the 0.01 level; \* significant at the 0.05 level. (N=505)

**Table 2.** *Correlations, Means, and Standard Deviations of Constructs*

After conducting exploratory factor analysis and refining the research model by excluding some of the items, final research model was subjected to further analysis on AMOS to test measurement model and structural model via Structural Equation Modeling. Having a  $\chi^2/df$  ratio within acceptable limits of 2 and 5 (Marsh and Hocevar 1985) and IFI and CFI values are over 0,90 and RMSEA value lower than 0,06 (Hu and Bentler, 1999) fit values of measurement model ( $\chi^2/df = 2,494$ ; RMSEA=0,054; CFI=0,93; IFI=0,93) indicated that the SEM procedure was appropriate for testing the proposed research model. Considering the acceptable fit values abovementioned, model fit values of structural model ( $\chi^2/df = 2,917$ ; RMSEA=0,065; CFI=0,91; IFI=0,91) indicated an acceptable consistency.

Although direct effect of the four independent variables on behavioural loyalty are not hypothesized in the research model, their direct effect is included to the model as additional paths to see whether they have a direct effect or not.

According to the findings previously obtained from the analyses, supported and not supported hypotheses are summarized in the following Table 3. Ten out of the proposed fifteen hypotheses are supported while five of them are found to be statistically nonsignificant.



Hypothesized Paths			Proposed direction	Unstandardized Estimate	t value	Supported
H1a	Satisfaction	Affective commitment	+	0,076	1,677	ns
H1b	Satisfaction	Calculative commitment	+	0,128	<b>2,414*</b>	Yes
H1c	Satisfaction	Normative commitment	+	0,002	0,038	ns
H2a	Alternative attractiveness	Affective commitment	-	0,018	0,345	ns
H2b	Alternative attractiveness	Calculative commitment	-	-0,098	-1,608	ns
H2c	Alternative attractiveness	Normative commitment	+	0,133	<b>2,637*</b>	Yes
H3a	Trust	Affective commitment	+	0,487	<b>8,571**</b>	Yes
H3b	Trust	Calculative commitment	+	0,591	<b>8,738**</b>	Yes
H3c	Trust	Normative commitment	+	0,344	<b>6,698**</b>	Yes
H4a	Resistance to change	Affective commitment	+	0,719	<b>10,244**</b>	Yes
H4b	Resistance to change	Calculative commitment	-	-0,122	<b>-1,926**</b>	Yes
H4c	Resistance to change	Normative commitment	+	1,003	<b>12,862**</b>	Yes
H5a	Affective commitment	Behavioural loyalty	+	0,092	<b>2,48*</b>	Yes
H5b	Calculative commitment	Behavioural loyalty	+	0,212	<b>5,796**</b>	Yes
H5c	Normative commitment	Behavioural loyalty	+	-0,004	-0,073	ns
<b><u>Added paths</u></b>						
	Satisfaction	Behavioural loyalty		0,167	<b>5,293**</b>	
	Alternative attractiveness	Behavioural loyalty		-0,149	<b>-4,127**</b>	
	Trust	Behavioural loyalty		0,359	<b>6,381**</b>	
	Resistance to change	Behavioural loyalty		0,076	0,917	

\*p < .05. \*\*p < .01; ns=statistically nonsignificant

**Table 3.** Results of Hypothesized Model

## DISCUSSION

In accordance with the findings in previously mentioned studies in which trust is considered to be a significant variable that positively affects affective commitment quantitative research findings indicated that trust is positively related to affective commitment. Unlike other studies which did not link trust to calculative commitment (Cater and Zabkar, 2009) and some others which negatively related trust to calculative commitment (Gounaris, 2005; Geyskens et al. 1996; De Ruyter and Wetzels,

1999; Cater, 2007; Chang et al, 2012) quantitative research findings revealed that trust is positively associated with calculative commitment and brand trust is one of the most important staying reasons that calculatively attaches consumers to brands. Suggesting that trust is a significant prerequisite of both attitude and behaviour, findings also indicated that trust is also positively associated with behavioural loyalty.

Satisfaction has also been found to be positively associated with behavioural loyalty while its effect on affective and normative commitment has found to be statistically nonsignificant unlike what was anticipated. This is maybe because in such a context like GSM industry customer satisfaction is quite cost sensitive rather than emotional attachments or individual or social based norms.

Although previous studies support that alternative scarcity actually locks customers in their current service providers and makes them calculatively committed, findings in quantitative research did not relate alternative attractiveness to affective and calculative commitment but related it to normative commitment. Suggesting the construct's domain, alternative scarcity is negatively associated with behavioural loyalty: an increase on attractiveness of alternatives result in a decrease in behavioural intentions.

As a concept originating from organizational behaviour, resistance to change is also one of the most significant staying reasons in a service provider as indicated in exploratory interviews and supported in quantitative research findings. Unlike the findings in previous studies (Beatty et al., 2012) quantitative research findings support that resistance to change in service provider makes customers less calculatively committed while it increases their feeling of emotional attachment to their service provider. However, findings indicated that the effect of resistance to change on behavioural loyalty is not statistically significant. This is maybe because resistance to change is actually an attitudinal construct that may result in a behaviour arising unintentionally.

As suggested in the model, research findings in quantitative phase support that commitment is positively associated with behavioural loyalty. Affective and calculative commitment positively affect behavioural loyalty as indicated previously. However, findings indicated that normative commitment has statistically nonsignificant positive effect on behavioural loyalty.

## **CONCLUSION, IMPLICATIONS AND LIMITATIONS**

This study provides important implications. As anticipated there are many factors leading customer loyalty. Although there are a plenty of factors affecting customer brand loyalty, this study mainly aims to offer an insight to the GSM industry.

While literature usually considers the concept of commitment as a distinct concept leading to loyalty, this study dealt with the concept as an attitudinal dimension of brand loyalty which leads to

behavioural loyalty as indicated in literature (Traylor, 1981; Assael, 1987; Kimmel, 2010). Based upon Fishbein and Ajzen's (1975) Theory of Reasoned Action which suggests that attitude arising from intentions leads to behaviour, this study argues that attitudinal loyalty (commitment) which is affected by several antecedents leads to behavioural loyalty.

According to the suggested model and hypotheses supported within sample at hand, commitment (attitudinal loyalty) has three sub constructs as affective, calculative and normative in the context of GSM industry and each of them affects behavioural loyalty differently while literature offers no consensus on the sub constructs of commitment.

Resistance to change which is considered to be one of the antecedents of attitudinal loyalty in this study is one of the least studied concepts in literature. It is also found to be reasonable to study this concept because marketing literature often deals with consumer resistance to new products (Oreg, 2003), often goods.

This study also has implications for practitioners by identifying main staying reasons of consumers in a service provider. Especially, in an industry like GSM industry, it is of great importance for a service provider to keep in mind the fact that most subscribers are prone to switch from one to another even though there is not much alternative. The churn rate between three GSM service providers is quite high according to the latest data obtained from Turkish Electronic Telecommunications Sector<sup>1</sup>. Therefore, developing loyal customers is of high importance for companies operating in this industry. In order to develop loyal customers, they should first develop positive attitude among customers and convert their attitude into behaviour. To do this, they can use such tactics as frequency programs but loyalty programs are concerned to be relatively more important for developing loyalty among existing customers. When developing loyalty programs, they can integrate customers to the product and/or loyalty program development process since co-creation of value is supposed to be quite important in services (Kowalkowski et al., 2012; Grönroos, 2012). As supported in quantitative research and mentioned by participants in qualitative research, brand image, trust and resistance to change in service provider are main factors affecting subscriber loyalty. In this context, what GSM service providers need to establish is to determine things to build a positive image in consumer mind. Then, building trust and understanding what actually happens behind the seen; their thoughts of change, what prevents them from switching or encourages them to switch need to be considered carefully. Companies need to realize the fact that every step they take results in a positive or negative effect to their image on consumer mind. Results of this study also indicate that service providers should bear in mind the fact that subscribers not only switch from one service provider to another just because of

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<sup>1</sup> [http://eng.btk.gov.tr/kutuphane\\_ve\\_veribankasi/pazar\\_verileri/2013\\_Q2\\_ECM\\_MarketData.pdf](http://eng.btk.gov.tr/kutuphane_ve_veribankasi/pazar_verileri/2013_Q2_ECM_MarketData.pdf) Date of access: 01.10.2013

financial incentives or disincentives, but also because of such implicit psychological factors like trust and feeling of resistance towards switching behaviour.

Operating as a services company, these firms should not disregard their existing customers after, what Bejou and Palmer (1998) called as an initial “honeymoon” period of the relationship since long term relationship development requires an ongoing effort rather than temporary. They should take into account such strategies as value recovery and value added ones since permanent service failures may result in reduction in commitment and trust (Bejou and Palmer, 1998).

This empirical study is also confined by a few limitations caused by time, access, and financial constraints. These limitations are highlighted as follows: First of all only one industry, GSM service providers operating in Turkey is chosen to conduct the research on. This fact results in context limitation as it limits the findings within only this industry practices and impedes generalizability of the findings to other industries. Sampling method and the number of sample are the other limitations that need to be handled. Convenience sampling is chosen as a method of sampling regarding its advantages of reaching cheap and easy to find samples. However, what is found is limited within the sample that has been reached. As previously mentioned, there are many factors affecting brand loyalty but only four of them have been included in this study regarding such factors as non-response bias of participants, constraints mainly time and access.

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## MODERATING VARIABLES OF CONSUMER PERCEPTION OF PACKAGING MATERIAL

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### ABSTRACT

The main role of packaging is to contain and protect product, but packaging also plays an important marketing role. Packaging communicates various marketing messages to the consumer and replaces the sales person's communicational effort in the retail context. However, marketing aspects of packaging attracted relatively limited attention among academic researchers.

The aim of this study is to provide insight into the marketing role of packaging material, as one of packaging's communicative dimensions. The focus of this study was on investigating moderating variables to the perceptual process. In order to provide an overview of the mechanism behind the consumer perception of packaging material, an empirical research was conducted by using a computer assisted telephone interview on a sample of soft drinks consumers.

As an outcome of this study, a conceptual model of consumer perception of packaging was developed. As the model shows, there is a number of internal and external moderating variables which have an impact on the perception process. The model also confirmed the overall importance of packaging in the marketing perspective.

**Keywords:** *marketing role of packaging; packaging material perception; moderating variables; soft drinks*

### INTRODUCTION

For centuries, packaging provided mankind with a means of storing and protecting various products of human effort, such as food and liquids. Furthermore, packaging made transportation of goods easier and safer, which added certain momentum to the development of trade. The first packages were crafted from various materials that were available in nature, such as big leaves, wood, fruit shells, or animal leather. The invention of pottery was probably the next step in the development of packaging and a major milestone in human history (Barnett and Hoopes, 1995). In the centuries to follow, other packaging materials were invented, such as glass, metal, paper, and various types of polymers.

While in the past the dominant purpose of packaging was to protect and contain the product, the development of trade and retail put new demands in front of packaging (Pilditch, 1973; Berger, 2005). With increased competition among producers and brands and proliferation of self-service within retail, packaging became a very important sales tool and even referred to as a 'silent salesman' (Dichter, 1957; Pilditch, 1973). With the salesperson missing in the retail environment, packaging assumed a role in communication and interaction with the consumer.

Although the marketing function of packaging seems to be widely recognized among practitioners, it received relatively limited attention among academic researchers (Underwood, 2003; Rundh, 2009; Kauppinen-Räsänen and Luomala, 2010). Therefore, the main aim of this study is to shed some light on the marketing aspects of packaging material, as one of the packaging variables. Commonly, packaging material is, primarily, a topic linked to production technology and technological aspects of packaging. However, it should also be considered as a packaging variable which has certain communicative value. Therefore, this study explores the mechanism behind the consumer perception of packaging material, as an element in the consumer-packaging interaction.

## **MARKETING PERSPECTIVE OF PACKAGING MATERIAL: A LITERATURE REVIEW**

### *An overview of marketing function of packaging*

Packaging contains and protects the product and could be considered as a 'medium between producer and consumer whose aim is to guarantee a product with fixed qualitative standards from the producer and at the same time offers to the consumer a product which corresponds to the illustrated standards' (Meroni, 2000). Packaging also plays an important role in product marketing and is sometimes referred to as the 'fifth P' by practitioners (Kotler and Keller, 2012).

In its marketing role, packaging is irreplaceable as a communicator of brand related messages. According to Fill (2013), packaging communicates through various dimensions, such as color and design. Underwood (2003) suggests that 'packaging communicates brand personality via structural and visual elements, including a combination of brand logo, colors, fonts, package materials, pictorials, product descriptions, shapes and other elements that provide rich brand associations'. The marketing aspect of packaging could be also approached from the perspective of design variables. As Sonsino (1990) suggests, packaging design variables are mainly: color, typography, pictures, shape, size, and material. Some authors discuss the variables of packaging design in two groups: graphic and structural elements (Hine, 1995; Underwood, 2003; Calver, 2004). Accordingly, graphic elements are color, typography and pictures, while the structural elements are shape, size, and material. All of the aforementioned elements are integral parts of packaging with a recognized marketing role and they



could be considered as communicative dimensions of packaging, which communicate specific brand messages to the consumer (Draskovic et al., 2011).

### *Consumer perception of packaging material*

Similar to the overall treatment of marketing aspects of packaging by academic researchers, the research focusing on the consumer perception of packaging material is scarce and unsystematic. Besides occasional notes on the marketing aspects of packaging material from the pragmatic aspect in design related literature, there is a very limited number of published scientific studies. More than 60 years ago, Banks (1950) researched consumer preference and sales results in the case of two different packaging materials for two bakery products, but found no significant difference.

Brown (1958) explored whether consumers' product perception was influenced by different types of bread wrappers. He revealed that the type of material used for wrapping did influence perception of bread's freshness for both consumer groups – students, and housewives. Almost two decades later, Baker and McDaniel (1977) found that consumers preferred one potato chips packaging material over another due to packaging material image rather than packaging convenience. Their findings seem to be in a conflict with the more recent interpretation of consumer preferences which emphasizes packaging convenience as one of the most important feature due to the changing consumption habits (Oertel et al., 2002; Rexam, 2006, 2011).

More recently, Sheffield University Packaging Research Group (Glasspac, 2010 a, b) conducted a research study about consumer preferences towards various packaging materials for a sauce. The study reveals that glass is the most preferred type of packaging, while plastic bottles are considered easy to use, but also as messy and unhygienic. In addition, sauce sachets are considered unfavorable and messy, and plastic pots are perceived to be good for dipping and appropriate for fast food. The study clearly reveals that consumers have different perceptions towards different food product packaging materials.

The marketing role of packaging material received some attention for its more pragmatic aspects. Most commonly, there are occasional notes in packaging design and new product development related literature on the effects on consumer perception that a particular packaging material is supposed to have. Sauvage (1996) suggests that glass has a high-quality image in the consumer mind, metal packages have an old-fashioned image, and plastics have a low-quality image, especially for older consumers. According to Schoiswohl (2003), sparkling wine packed in a typical glass bottle communicates prestige, while plastic packaging evokes associations of convenience. Similarly, Groth (2006) states that polyethylene terephthalate (PET) packaging 'does not carry the same quality perception of glass' or that cardboard 'does not carry the same quality perception as some other materials'. Klimchuk and Krasovec (2006) emphasize the premium image of glass which 'with its

visual and tactile qualities [...] communicates a reliable and distinctive quality material'. Mooy and Robben (2002) suggest that 'the tactile sensation of the material of the product may give [an] impression of its quality'. Ellwood (2000) stresses the influence of packaging material on the brand personality link between brands and packaging material. What all of these practically oriented statements share in common is that they do not rely on the empirical research findings. Consequently, it could be concluded that these statements represent a common marketing belief about the communicational value of a particular packaging material based on past and current professional experience.

#### *Framework for hypotheses development*

As the literature review revealed, research on packaging material perception is scarce and non-systematic. Furthermore, this area also lacks in description of the packaging material perception mechanisms via appropriate marketing models. A recent qualitative exploratory study (Draskovic et al., 2009) indicated that consumers seem to be aware of the physical attributes and functionality of packaging materials (e.g. weight, rigidity, fragility, protective function, convenience) and they perceive differences in these attributes among various types of packaging materials. Yet, consumers seem to be less certain in cases of less obvious product material related characteristics (e.g. environment impact, recyclability). Consumers perceive that different packaging materials have different functional characteristics and, therefore, provide them with different benefits. Accordingly, hypothesis may be framed as:

H1: Consumers perceive functional differences among different packaging materials.

In order to obtain better understanding of the process behind consumer perception of packaging material, it is necessary to investigate possible moderating variables. As an appropriate starting point, constructive perception theory was selected (Michaels and Carello, 1981; Sternberg and Sternberg, 2012). Based on that theory, consumer perception is moderated by various factors, like stimulus characteristics, stimulus context, and situational variables (Biswas and Blair, 1991; Sheth et al., 1999; Palmer and O'Neil, 2003; Schiffman et al., 2008; Solomon, 2013). Depending on the origin, some of the moderating variables are internal and related to the consumer's personal attributes (e.g. age and culture) and internal psychological processes (e.g. stimuli interpretation and attitudes), while others are external and are reflections of physical and social environment and time (Solomon, 2013). The qualitative exploratory study by Draskovic et al. (2009) indicated that packaging material perception and preference differ depending on age, product category, place of consumption, and whether purchase and consumption are separated or connected. To test these statements, the following hypotheses are developed:

H2: The perception of packaging material is moderated by the consumer internal variables.

H3: The perception of packaging material is moderated by the consumer external variables.

Taking into consideration described hypotheses and principles of indirect or constructive perception theory, a preliminary conceptual model is developed (Figure 1).

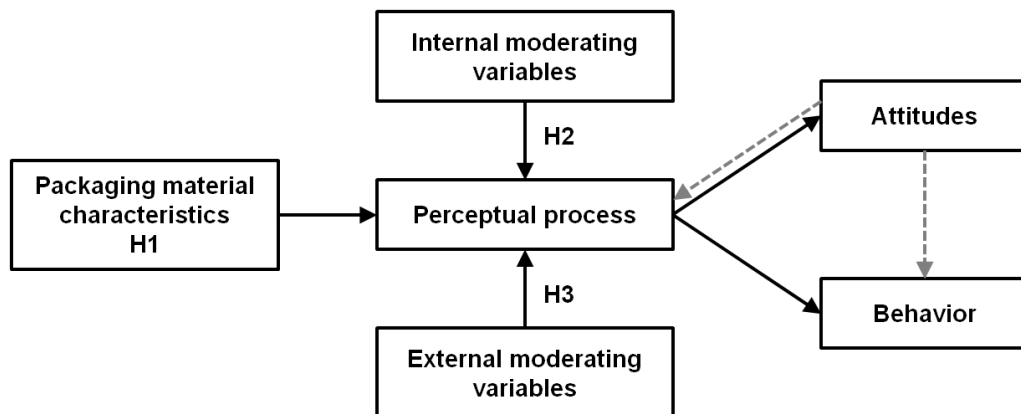


Figure 1. *THE INITIAL MODEL OF MODERATING VARIABLES INFLUENCING THE CONSUMER PERCEPTION OF PACKAGING MATERIAL*

## RESEARCH STUDY DESIGN

The empirical research is based on the quantitative research methodology. The method selected for conducting the research was a computer assisted telephone survey (CATI). The research was conducted on a representative sample of Croatian frequent soft drinks consumers (N=847). In order to achieve better sample representativeness, a proportional stratified sampling was undertaken, since the findings from a stratified sample are usually more accurate than the findings from a simple random sample (Berenson et al., 2011). The statistical analysis of data was performed by using SPSS, and it was comprised of frequency analysis, cross-tabulation, and Pearson Chi-Square analysis.

The main goal of the primary research was to measure consumer preferences towards various packaging materials in different contexts. Therefore, consumer preferences were measured in different consumption and product category contexts in order to explore potential internal and external moderating variables.

## DATA ANALYSIS AND FINDINGS

Comparison of characteristics of the sample and the population confirmed that the sample was representative. According to the collected data, consumers are aware of various packaging characteristics which could be related to the packaging material, such as usage convenience, protection from external influences, alteration of taste and smell, design, and transparency. Consumers also evaluated the level of importance for each packaging characteristic. According to the results, there are four groups of characteristics based on the level of importance (Table 1). The first

group with the most important characteristics of packaging includes characteristics related to the protective function of packaging in general (e.g. hygienic, healthy, protection from external influences, etc.). In the second group are characteristics related to the air-tightness of packaging material. The third group consists of characteristics which are related to packaging convenience, with the exclusion of the environmentally friendly characteristic. The fourth group, which is considered the least important, consists of characteristics related to the visual appearance of packaging. Consumers were also asked to relate packaging characteristics with the most common packaging materials used for soft drinks (e.g. glass, PET, carton, and can). As the Table 1 shows, glass is considered as a material that has most of the characteristics from the first three groups. As the only variation, participants consider that plastic preserves product quality and freshness better than glass. Plastic and carton achieved the best score among the third and fourth group of characteristics. Overall, can is not well perceived and preferences towards this type of packaging seem to be very low.

It is obvious from the research findings that consumers notice various characteristics related to various packaging materials. So, it could be concluded that research results support H1.

Packaging characteristics	Importance ponder	Packaging material (frequencies)				
		Glass bottle (%)	Plastic bottle (%)	Can (%)	Carton (%)	No answer (%)
Hygienic	4.7	67.9	47.2	8.9	19.5	4.0
To be healthy; not to contain hazardous ingredients that could affect health	4.7	74.3	23.0	3.6	18.7	6.5
To preserve product quality and freshness	4.7	71.9	91.4	11.2	19.2	4.4
Not to alter product's taste or smell	4.6	71.5	35.0	10.0	17.1	6.5
To protect from external influences	4.4	55.0	31.3	24.3	31.1	10.0
Not to influence product's level of carbonization	4.4	66.0	37.8	11.5	9.0	9.2
Convenient for handling	4.2	10.6	84.6	15.2	24.5	0.7
To be environmentally friendly; to be biodegradable or to be used for production of new packaging	4.2	52.2	33.9	17.6	63.5	2.5
Non-returnable packaging	4.1	5.2	90.3	61.9	70.6	0.2
Easy for carrying	3.9	2.3	85.4	21.7	39.4	0.2
To be appropriate for special occasions (ceremonies, parties, etc.)	3.8	33.5	71.8	13.1	30.6	3.3
Product in the package looks attractive for consumption, attractive for drinking	3.6	47.8	56.2	19.9	20.4	2.9
To be transparent, to be able to see the product during purchase	3.5	79.7	79.7	0.5	1.3	0.8
To be contemporary, modern packaging	3.3	17.1	64.0	20.4	31.3	5.1

Table 1. *Packaging characteristics and packaging materials (N=847)*

Findings from the study also revealed a relationship between preferences towards packaging materials and various consumer demographic and personal characteristics (Table 2, Table 3). Depending on the context, namely consumption situation/occasion and product category, a

statistically significant ( $p \leq 0.05$ ) relationship between preferences towards packaging materials and consumers' region, age, town size, and level of education was found. In other words, these variables have moderating influence on consumer preferences towards various packaging materials. While the influence of region and town size could be associated with cultural influences, level of education is a category related to social class. The influence of age on packaging material perception could be explained through previous experience with different packaging materials. To conclude, primary research findings provided support for H2, pointing out age, gender, social class, and culture as internal moderation variables.

Consumption situation/occasion	Demographics	Pearson Chi-Square		
		Value	Degrees of freedom	Statistical significance (p)
At home	Gender	6,981	4	0.137
	Region*	115,924	20	0.000
	Town size	19,644	12	0.074
	Age	12,298	12	0.422
	Level of education*	32,045	12	0.001
	Employment	10,041	8	0.262
Special occasions	Gender	5,029	4	0.284
	Region*	72,897	20	0.000
	Town size*	24,769	12	0.016
	Age	14,087	12	0.295
	Level of education*	23,855	12	0.021
	Employment	12,722	8	0.122
Cafes, restaurants, etc.	Gender	3,412	4	0.491
	Region*	35,707	20	0.017
	Town size	16,596	12	0.165
	Age	19,848	12	0.070
	Level of education	15,805	12	0.200
	Employment	7,967	8	0.437
At work, in school	Gender	8,150	4	0.086
	Region*	86,395	20	0.000
	Town size*	25,735	12	0.012
	Age	23,078	12	0.027
	Level of education	9,136	12	0.691
	Employment	8,233	8	0.411
On a trip, during sport activity	Gender	4,055	4	0.399
	Region*	59,038	20	0.000
	Town size	7,265	12	0.840
	Age	9,181	12	0.687
	Level of education	9,315	12	0.676
	Employment	13,011	8	0.111
On the go	Gender	9,015	4	0.061
	Region*	49,742	20	0.000
	Town size*	26,530	12	0.009
	Age	8,645	12	0.733
	Level of education	7,201	12	0.844
	Employment	10,573	8	0.227

Table 2. RELATIONSHIP BETWEEN PREFERENCES TOWARDS PACKAGING MATERIALS AND CONSUMER DEMOGRAPHIC AND PERSONAL CHARACTERISTICS, BY CONSUMPTION SITUATION (N=847)

Product category	Demographics	Pearson Chi-Square		
		Value	Degrees of freedom	Statistical significance (p)
Fruit juices	Gender	2,094	4	0.718
	Region*	51,419	20	0.000
	Town size	5,608	12	0.935
	Age*	25,447	12	0.013
	Level of education	18,239	12	0.109
	Employment	2,502	8	0.962
Carbonated soft drinks	Gender	4,892	4	0.299
	Region*	50,215	20	0.000
	Town size*	22,419	12	0.033
	Age	7,809	12	0.800
	Level of education	14,543	12	0.267
	Employment	3,532	8	0.897
Carbonated water	Gender	2,812	4	0.590
	Region*	33,621	20	0.029
	Town size	19,300	12	0.082
	Age	9,696	12	0.619
	Level of education	10,741	12	0.551
	Employment	6,694	8	0.570
Non-carbonated water	Gender	1,052	3	0.789
	Region*	43,839	15	0.000
	Town size	12,203	9	0.202
	Age	14,428	9	0.108
	Level of education	7,554	9	0.580
	Employment	5,987	6	0.425

Table 3. *RELATIONSHIP BETWEEN PREFERENCES TOWARDS PACKAGING MATERIALS AND CONSUMER DEMOGRAPHIC AND PERSONAL CHARACTERISTICS, BY PRODUCT CATEGORY (N=847)*

The study results confirmed the existence of external variables influencing the consumer perception of packaging material. As the findings revealed, packaging material preferences vary between different consumption occasions (Table 4) and are also somewhat related to the product category (Table 5). Therefore, H3 received support, while consumption occasion and product category could be pointed out as external moderating factors.

Consumption situation/occasion	Packaging material (frequencies)				
	Glass bottle (%)	Plastic bottle (%)	Can (%)	Carton (%)	No answer (%)
At home	39.3	41.8	0.2	15.4	3.3
Special occasions (celebrations)	26.8	61.2	0.7	10.4	0.9
Café, restaurant, etc.	87.6	10.6	0.7	0.4	0.7
At work, in school	5.3	76.3	4.8	11.7	1.9
On a trip, during sport activity	0.4	82.3	6.6	9.8	0.9
On the go: walking, etc.	0.4	84.3	8.3	4.6	2.4

Table 4. *PREFERENCE TOWARDS VARIOUS PACKAGING MATERIALS DEPENDING ON CONSUMPTION OCCASION*  
(N=847)

Product category	Packaging material (frequencies)				
	Glass bottle (%)	Plastic bottle (%)	Can (%)	Carton (%)	No answer (%)
Fruit juices	26.2	31.8	0.5	41.1	0.4
Carbonated soft drinks	25.9	68.9	2.3	2.1	0.8
Carbonated water	40.0	58.2	0.2	0.9	0.7
Non-carbonated water	19.7	77.8	0.0	1.2	1.3

Table 5. *PREFERENCE TOWARDS VARIOUS PACKAGING MATERIALS DEPENDING ON PRODUCT CATEGORY*  
(N=847)

## CONCLUSION

### *Packaging material consumer perception model*

The main outcome of this study and contribution to the better understanding of marketing aspects of packaging is the model of moderating variables influencing the consumer perception of packaging material (Figure 2). Empirical research findings provided substantial support for the refinement of the initial model. With its comprehensive approach to the aspects of packaging material perception, the model of moderating variables influencing the consumer perception of packaging material provides insight into the complexity of the packaging perception process.

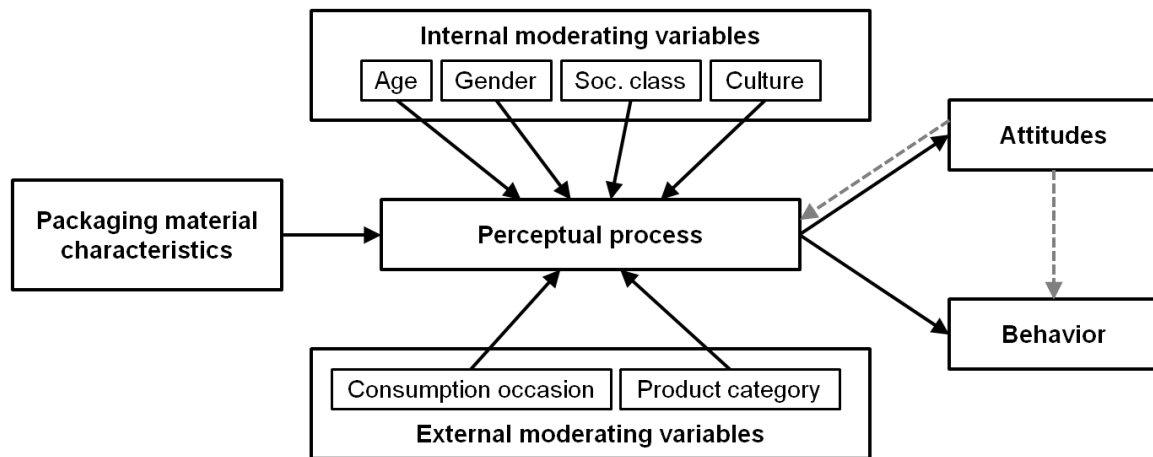


Figure 2: *THE MODEL OF MODERATING VARIABLES INFLUENCING THE CONSUMER PERCEPTION OF PACKAGING MATERIAL*

According to the developed model, the perceptual process itself is moderated by a number of variables. As the research revealed, there are two groups of variables – internal and external. Internal variables are personally related to the consumer and include age, gender, social class, and culture. On the other hand, external variables are related to the environment in which the consumer is exposed to the stimuli which originate from the packaging material. External variables consist of consumption occasion and product category. It should be noted that the research findings revealed these variables as the most significant. However, due to research limitations, it is possible that other variables were not revealed through the stages of primary research that could moderate the perceptual process. Their possible existence should be treated as a motivating factor for the further development of this model.

#### *Research limitations and propositions for further research*

This research has several limitations. First of all, this study focuses solely on soft drinks packaging. In order to improve the generalizability of the developed model and to achieve further insight about the moderating variables of packaging material perception, it would be advisable to repeat the research with different product segments (e.g. alcoholic beverages, packed food products).

The second limitation related to this study is that the primary research was staged in Croatia, which is considered an emerging country. Consequently, the findings could have certain country or culture related specifics. Despite certain beliefs among scholars that developing markets could be considered natural laboratories for theories testing, it would be beneficial to repeat research on packaging material perception in other countries with different socio-economic and demographic backgrounds (Dekimpe and Lehmann, 2004; Burgess and Steenkamp, 2006).



Finally, packaging material perception could be further explored and the model could be additionally tested using different research methodology. Consumer behavior and reactions to different packaging materials could be observed through laboratory tests or in a retail environment. Furthermore, packaging material perception could be further investigated by the application of qualitative case study methodology. Through the selection of product categories, producers, or distinctive brands, case studies could reveal the possible existence of a relationship between the packaging material choice and the market success of a particular product category or a brand.

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## FORECASTING BEHAVIOUR OF FINANCIAL ANALYSTS IN OPEN COMPETITION AND IN PRIVATE

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### ABSTRACT

There has been a long and ongoing discussion in the literature about the influence of the design of incentive schemes for forecasters and, more specifically, influence factors like consensus-seeking, competition and publicly stated and private (non-public) forecasts. This report presents preliminary findings from experiments with financial analysts' stock price predictions in open competition and private settings, including the research process and a summary of the results. The experiments with financial analysts comprised a pilot and a main run.

The analysis indicated that even for professional financial analysts who usually describe themselves as rather rational persons, decisions about investments or stock price recommendations are not always very consistent and, amongst other factors, are influenced by emotional factors and intuition. Slightly different settings and ways to frame the questions have had considerable impact on the decisions made by analysts. The collected data support, to some extent, the idea that the incentives for analysts and public competitions might influence financial analysts, and this might lead, in some cases, to a reduced quality of recommendations. In the private setting, there is a considerably higher likelihood that an analyst is going to change the recommendations or target price. Further research might help to gain a more holistic understanding of the decision-making process and to create an explanatory schema.

**Keywords:** *Behavioural and experimental economics, Decision analysis, Stock price predictions, Analyst forecasts, Heuristics and biases, Uncertainty*

### INTRODUCTION

There is a long and ongoing discussion in the literature about the influence of the design of incentive schemes for forecasters (Osband 1989) and, more specifically, influence factors like consensus-seeking, competition and publicly stated and private (non-public) forecasts (Batchelor & Dua 1992; Lichtendahl et al. 2013; Ottaviani & Sørensen 2006; Marinovic & Ottaviani 2013). This is particularly relevant for financial analysts when incentives (Aiolfi et al. 2009; Beyer & Guttman 2011) and conflicts of interest may influence the publicly stated forecasts (Bolliger 2004; Bolliger 2004; Lin & McNichols 1998; Stanzel 2007). This report presents preliminary findings from experiments with financial analysts' stock price

predictions, including the research process and a summary of the results. The objectives of the study were to assess the effect of publication pressure and group dynamics on stock price predictions, to assess whether a difference exists between non-public and published recommendations and to identify the underlying key mechanisms of the decision-making process. This paper presents some preliminary results of the analysis of the analysts' recommendations from an online decision-making experiment. Besides these analysts, there have also been laypeople and other financial professionals involved in the experiment (Endress 2013; Endress & Gear 2013). However, this report focuses on some of the aspects of the recommendations from professional financial analysts.

## **EXPERIMENT DESIGN AND METHODOLOGY**

### *Mixed Methods*

The combination of quantitative and qualitative approaches and the triangulation of both promises to create a holistic understanding of the decision-making process of these analysts associated with a 'pragmatic perspective where designs and methods are selected on "what works" for answering the stated research questions' (Plano & Badiie 2010, p. 279). In the event that the research questions consist of confirmatory and explanatory questions, mixed methods becomes appropriate (Teddlie & Tashakkori 2009). The data for this research will be gathered primarily from two sources: a controlled (private) experiment and interviews. These data will be supplemented by (open) data from financial data providers (in particular from Bloomberg).

### *Conducted Experiments*

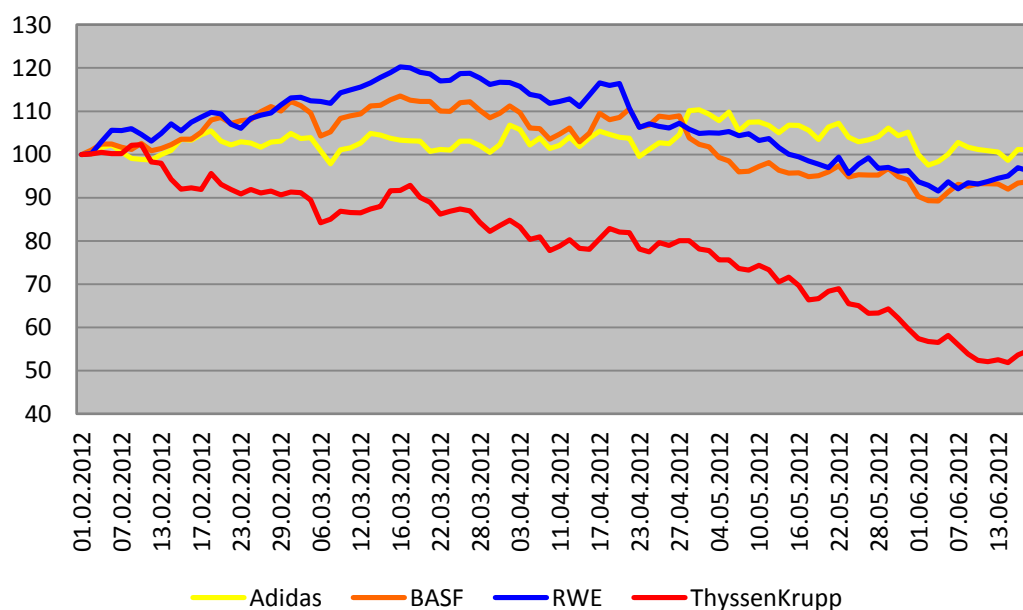
The experiments comprised a pilot and a main run. The pilot run was performed with three financial analysts. The main run was performed with five financial analysts. The financial analysts are highly qualified professionals and were purposefully selected from different financial services companies according to their formal qualification, business experience and active coverage of the various companies. The recommendations of the analysts were benchmarked with actual market prices as well as with their open recommendations as published on Bloomberg, over five weeks in the pilot run and 10 weeks in the main experiment. Each participant in the experiment was asked to provide an estimation of the movement (up or down) twice a week for three-month future periods for each of four shares as well as to enter a stock price prediction for a three-month period. Additionally, all participants were interviewed after the experiment to gain a deeper understanding of the underlying decision making process.

## PILOT RUN DESIGN AND FINDINGS

### *Design of the Pilot Run*

The analysts were asked to fill out an online form twice a week. There was a Friday and a Sunday query round. The online form for every round was available and open to enter data for two days. All participants were invited to participate in every round with an email, which included a direct link to the online form. There was a reminder email sent roughly a half day before the closing of the respective query round, in case the questionnaire was not filled in. All financial analysts participated voluntarily, and there were no incentives for them for making correct predictions. All analysts received the assurance that they stayed anonymous during the experiment and that they were not mentioned in the compiled reports from the experiment.

The shares of the main run were selected from four different companies in four different sectors: consumer goods (Adidas), chemical industry (BASF), utilities (RWE) and industry (ThyssenKrupp). Each participant was asked to provide an estimation of the movement (up or down) over a three-month period for every share as well as to enter a stock price prediction (in percentage form, either up or down) for a three-month period. The market environment had no clear direction during the relevant period for the pilot run. The DAX, the main German stock index, lost about 3% from the beginning of February until the end of June. The different stocks also had different price movements during the examination period (see Figure 1). For instance, while one stock (Adidas) was quite constant during that period, two others (BASF and RWE) started out well but lost in the second half, and one stock (ThyssenKrupp) performed poorly and lost more than 40% of its market value.



*Figure 1: Stock price movement for the relevant examination period of the pilot run*

*Results and Findings from the Pilot Run*

The financial analysts provided 15 correct answers from 40 measurements in private—that is, the pilot run of the experiment. Compared with the open data published on Bloomberg, that is exactly the same number of correct answers. However, the target price accuracy was considerably higher in the private setting. All analysts had a higher target price accuracy in the experiment compared with their open price targets published on Bloomberg. Table 1 shows the deviation from the target price estimation to the actual market price after the three month period..

	Experiment (Private) Target Price Accuracy	Bloomberg (Open/Public) Target Price Accuracy
Adidas	7.94%	8.55%
BASF	13.41%	17.80%
RWE	14.51%	23.11%
ThyssenKrupp	54.49%	65.20%
Average	22.23%	28.67%

Table 1. *Analysts' Private and Open Target Price Accuracy from the Pilot Run*

Moreover, it could be observed that financial analysts are more optimistic in the open setting compared with the private experiment. The analysts provided 30 buy recommendations in the open setting compared with only 25 in private. It was also found that experts were more likely to change their recommendations in the private setting. While the analysts did not change their open recommendations on Bloomberg during the five-week period of the pilot run, there were nine changes of recommendation in the private setting. Only one expert did not change his recommendation during the experiment.

## MAIN RUN DESIGN AND FINDINGS

### *Design and Market Environment of the Main Run*

The design and approach of the main experiment was principally similar to the design of the pilot run. There were just a few changes in terms of an enhanced online questionnaire, more interview questions and that they were asked to enter the target price not as the total amount in euros but as change in percent.

The shares of the main run were selected from five different companies in five different sectors: consumer goods (Adidas, Bloomberg code: ADS GY Equity), construction (HeidelbergCement, Bloomberg code: HEI GY Equity), utilities (RWE, Bloomberg code: RWE GY Equity), technology

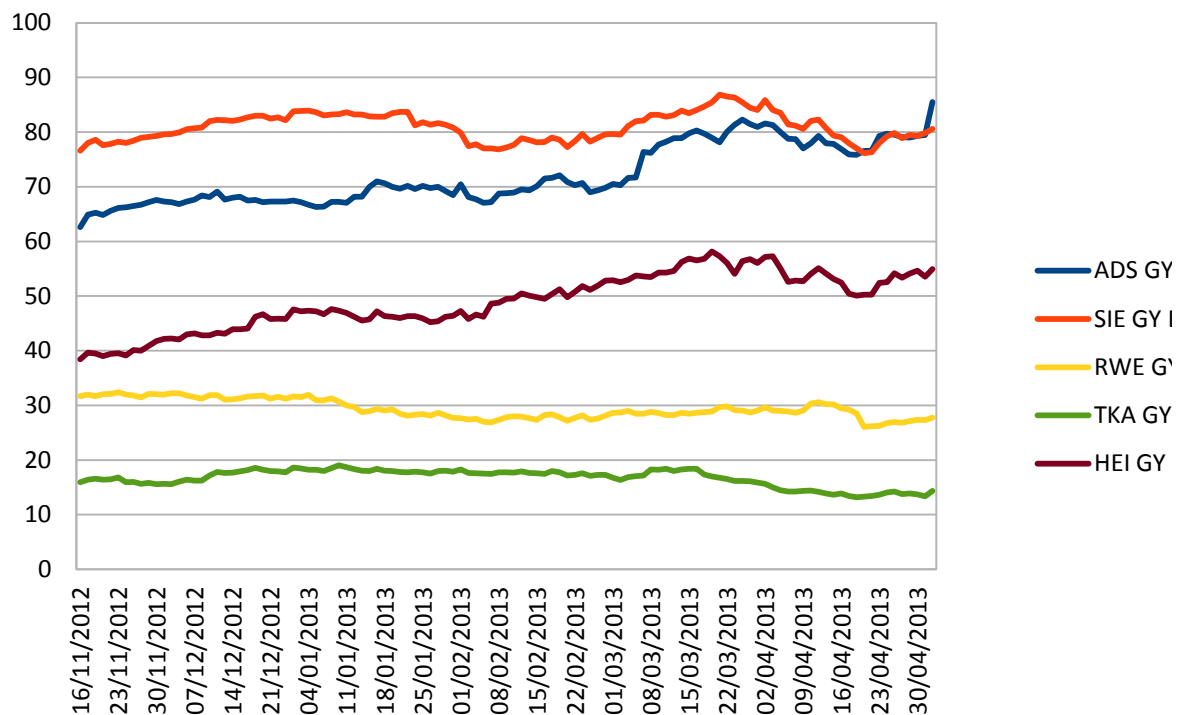


Figure 2: Stock price movement for the relevant examination period

(Siemens, Bloomberg code: SIE GY Equity) and industry (ThyssenKrupp, Bloomberg code: TKA GY Equity). Each participant was asked to provide an estimation of the movement (up or down) over a one-week, one-month and three-month period for every share as well as to enter a stock price prediction (in percentage, either up or down) for a three-month period. There was a quite bullish market condition in the relevant period of the main run. The DAX index went up about 17% during the examination period. Still, the different stocks had different price movements during the examination period (see Figure 2); while some stocks went mostly up (Adidas +36.56%, HeidelbergCement +43.04%), others went down (RWE -12.4%, ThyssenKrupp -8.67%) and one share showed a sideward tendency and no clear direction (Siemens +5.18%).

#### *Results and Findings form the Main Run*

The financial analysts provided 60 correct answers from 90 measurements (10 measurements from the overall 100 measures were missing) in private—that is, the anonymously given estimates during the main run of the experiment. Compared with the open data published on Bloomberg, this is a considerably lower number of correct answers. Seventy-six of the answers were from the open 100 measurements on Bloomberg. Similar to the findings from the pilot run, the target price accuracy was considerably higher in the private setting. The overall higher target price accuracy was higher in the

experiment compared with their open price targets published on Bloomberg. However, in contrasting the findings from the pilot run, not all analysts' target price estimations were more accurate.

	Experiment (Private) Target Price Accuracy	Bloomberg (Open/Public) Target Price Accuracy
Adidas	6.60%	8.03%
HeidelbergCement	5.17%	6.34%
RWE	15.31%	4.58%
Siemens	7.95%	27.70%
ThyssenKrupp	18.41%	11.21%
Average	11.07%	11.57%

Table 7. *Analysts' Private and Open Target Price Accuracy from the Main Experiment*

During the main experiment, it could be observed that financial analysts were slightly less optimistic in the open setting compared with the private experiment. The analysts provided 60% (60) buy/avoid and 40% (40) sell recommendations in the open setting, compared with only 62.2% (56) and 37.8% (34) sell recommendations in private (10 missing private measurements have been excluded). However, this difference is very small and possibly affected by the news flow and situation with Siemens (e.g., Höhler 2013; Rubenfeld 2013) and ThyssenKrupp (e.g., Ott 2012; Sheahan 2013) involved in issues with very negative sentiment. Regulatory issues, particularly the changes in German energy policy, provided also a quite negative sentiment for RWE (Eckl-Dorna 2013), which might have influenced the public perception of the company. It is still possible that this market environment had an influence on the results. Further research is needed to test the hypothesis of overoptimistic public recommendations of financial analysts.

The main experiment indicated that experts were more likely to change recommendations in the private setting. While the analysts did not change their open recommendations on Bloomberg during the 10-week period of the main experiment, there were six changes of recommendations in the private setting. Additionally, there was only one change in target price on Bloomberg, but there were 70 changes in price target in the private setting. In addition, 26 missing private measurements have been excluded, and the target price was unchanged only four times. Obviously, the analysts were much more likely to change their opinions in the anonymous setting. That might have contributed to the higher price target accuracy.

Some of the preliminary findings from the interviews are that almost all professionals mentioned that they are very interested in the markets and see it even as a hobby. Most of them trade shares themselves on a private account. One analyst stated: "I trade stocks myself. That is probably the



strongest argument. It's a hobby of mine. I read a lot that has to do with or could have to do with it" or "It manifests itself first of all that I also investing my private money in stocks, that is also in single instruments and also that I inform myself just before I do that. This is on the one hand, of course, a pure financial investment, but on the other side also interesting. In a sense it is also a hobby." When answering the question as to how they made their decision, the professionals still referred to intuition and gut feelings. They included answers such as the following: "Frequently market climate and intuition and gut feeling, probably even more than valuation, although I know the valuation and ratings of companies that I do not cover as well." But it seems that gut feelings are not the same for professionals, besides similar initial classifications, who described a quite different decision approach. When asked to describe the intuition and gut feelings, they answered as follows: "[It] has a lot to do with the development of the stock in the last few days and how I generally estimate the market. So for example, I guess the market is not so great, and the stock previously went very well, then I guess it's not quite good, it's probably going down" or "Yes, more like the general market sentiment, the news flow, macro but also micro, so to speak, and how I perceive it, so that's not carefully analyzed but rather the current mood."

## RECOMMENDATIONS FOR FURTHER RESEARCH

The data gained from the conducted experiments has not been completely examined. There are still unanswered questions that might be addressed with further analysis of the data from the pilot and the main run. Moreover, the analysis of the conducted interviews is not completed at this point. A triangulation of the quantitative data from the experiments with the supplementing interviews might provide some more insights in the decision-making process of the individuals. Nevertheless, it might be useful to conduct further experiments with other market conditions, different stocks, and variations of the questionnaire design. With more data, it might be possible to gain a better understanding of questions like the following: Are financial analysts consistently overly optimistic with their forecasts of covered stocks? Or are analysts better than laypeople in bull markets but lose that advantage in bear markets? This could not be fully addressed with the conducted experiments. Additionally, the data from the in-depth interviews might provide some more information about the factors influencing the underlying decision-making process.

## CONCLUSION

The analysis indicated that even for professional financial analysts that usually describe themselves as rather rational persons, decisions about investments or stock price recommendations are not always very consistent and, amongst other factors, are influenced by emotional factors. Slightly different

settings and ways to frame the questions have considerable impact on the decisions made. The collected data supports, to some extent, the idea that the incentives for analysts and public competitions might induce financial analysts to report strategically (Lichtendahl et al. 2013), and that might lead, in some cases, to a reduced quality of recommendations. There are indications that anonymously given forecasts might be better because analysts do not incur any peer pressure or incentives and there is no need to justify any changes in their opinions, but this was only found with the target price predictions. Still, there were not always better results with the anonymous/private setting. While the pilot run has provided some indications that there is a higher tendency to change non-public recommendations, there was no indication that this higher amount of changes increased the quality of the forecasts. In the main run, it was found that there was not only a higher rate of recommendation change activity but that the public recommendations actually have been considerably better than the private ones.

A completely different result has been found with the target prices. There was a much higher change activity amongst these prices. The analysts provided, in almost every round, new target prices. In this case, the private estimations of target prices have led to considerably higher accuracy of target price forecasts for most stocks. That might be partly explained by the significantly higher amount of changes of price recommendations. Further research might help to gain a more holistic understanding of the decision-making process and to create an explanatory schema.

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## COMPARING FACTORS AFFECTING INTER AND INTRA-CITY TRAVEL MODE CHOICE: CASE OF UNIVERSITY STUDENTS

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### ABSTRACT

With the enabling factors by globalization, people are traveling more than ever. Especially, young are traveling alone or their peers more freely, easily and inexpensively. Indeed, Richards and Wilson (2003) report that around one-fifth of all travels in the world are made by youngsters. Increasing number of transportation options and at the same time decreasing travel prices requires travel companies to understand university students' travel behavior and affecting factors to better serve this special group of travelers. Even though there are studies available regarding the travel mode choice in some extend, there are gaps remain in the literature about factors affecting travel mode choice and in the university student sub-market. In order to help close this gap, an extensive study has been undertaken among university students. Part of this extensive study delves with the factors affecting travel mode choice inter and intra-city. A survey developed from the existing literature along with exploratory qualitative interviews, were conducted in class environment with university students in five universities in five cities in Turkey. Exploratory factor analysis results indicated two main factors: Primary (price, safety, speed and comfort) and Secondary (feeling free, reducing stress, environmental concerns, prestige and status). These two factors affecting inter and intra-city travel mode choice are considered similarly, but students weighed more importance to primary factors than secondary ones. Moreover, findings suggest that students consider both factors more important when traveling intra-city than inter-city.

**Keywords:** *Travel Mode Choice, Students, Inter-City, Intra-City, Turkey*

### INTRODUCTION

Economic, psychological and social factors affect customers' preferences almost every decision about the consumption of goods and services. Travel market is a part of service industry in which decisions are made by customers considering many factors. Indeed, in many travel choice studies undertaken with general public, the unit of analysis is the individual. In the literature, studies treat mode choice as

an application of consumer choice theory grounded in the notion that people choose among alternatives to maximize personal utility or net benefit to themselves. Although student travel market worth millions of dollars business, it has not been researched sufficiently (Chadee and Cutler, 1996). In general, little is known about the travel preferences of university students (Shoham, Schrage, and van Eeden, 2004) and factors affecting these preferences.

An extensive literature review on university student's travel mode choice shows that previous studies have focused on four main areas. They can be classified as students' travel motives and their influence on travel decisions (Kim and Jogaratnam, 2002; Klenosky 2002; Smeaton et al. 1998); associations between motivation and related variables (Josiam et al. 1999); travel patterns and favored activities (Carr 2002, Hsu, and Sung 1997, Field 1999, Kim and Jogaratnam 2003, Michael, Armstrong, and King 2003, Shoham, Schrage, and van Eeden 2004); travel satisfaction (Babin and Kim 2001, Bai *et al.* 2004). In general, studies conclude that student travelers present a profitable market with different needs and desires. This market also has different patterns of travel and motivation. Therefore, further research in this market should be undertaken with a multi-dimensional perspective (Kim, Oh, Jogaratnam, 2007) including factors affecting travel mode choice.

In order to fill above mention gap in the literature, an extensive study exploring university student's travel mode choice in general and factors affecting inter and intra-city travel mode choices has been undertaken. This paper specifically emphasizes and reports on factors affecting inter and intra-city travel choices. Furthermore, it compares the importance of factors in deciding between two different travel types.

## LITERATURE REVIEW ON STUDENT TRAVEL

It has been suggested that people not only use a travel mode because it provides them with the quickest, easiest and cheapest way to get to their destination, they also make a choice of mode based on feelings of excitement and pleasure (Ellaway et al., 2003; Sandqvist, 1997; Steg *et al.*, 2001). University students are a social group that tends to have unique and complex travel behavior. With considerable freedom in the campus environment students are essentially autonomous in their decision making relating to their daily activities with minimal control from the university authorities and their parents. They live, study, socialize with their peers; thus decisions on daily activities of one student are regularly affected by his or her friends. At their age they are open-minded and receptive to new ideas from colleagues with various backgrounds and mixed interests. All these factors cause university students to have complicated daily schedules, resulting in complex travel patterns (Limanond, Butsingkorn, Chermkhunthod, 2011).

According to Richards and Wilson's (2003) report, around one-fifth of all tourism journeys in the world are made by young people aged 15–25 years, among which students account for a big percentage. The experiences of young travelers today also provide an important basis for their travel decisions later in life. Because of students' increasing numbers, and their increasing disposable income and mobility nowadays, the student segment is an attractive one to travel and tourism marketers, and hence, warrants further research (Hobson and Josiam, 1992; Chadee and Cutler, 1996; Sung and Hsu, 1996; Josiam et al., 1998; Field, 1999; Bai *et al.*, 2004).

To understand the university student's travel behavior, it is necessary to analyze the decision-making process and factors affecting each step of the process. According to widely used models of the consumer decision-making process (Engel et al., 1978; Howard and Sheth, 1969; Moutinho, 1987), customers are motivated by particular needs and desires leading to search for information, the evaluation of alternative and the choice of product. Moreover, the individual decision will be influenced by a range of personal, social, market, economic and cultural factors (Xu, Morgan and Song, 2009). Selecting the travel mode choice from which customers derive the greatest utility (or satisfaction) is subject to time and money budget constraints. Also decisions about travel modes are affected by the level-of-service that is a function of the time, cost, comfort, and other attributes of the mode used and of the route traveled (Adler and Ben-Akiva 1979).

In their study Aarts, Verplanken and Knippenberg (1997) focused on travel mode choice behavior in order to test theoretical propositions as to habitual decision making. Specifically, they explored the role of habit in information processing underlying daily travel mode choices. In the study of Hunecke *et al.* (2001) the Schwartz norm activation model (Schwartz, 1977) was applied to a special kind of environmental behavior, namely travel mode behavior. Travel mode choice has become an important topic within the research of environmentally relevant behavior. The objective of Limanond, Butsingkorn, Chermkhunthod (2011) is to investigate the travel patterns of university students with a case study of a rural university in Thailand. Their study aimed to examine various aspects of travel behavior including trip generation, mode split, travel distance, and travel time. Lastly, Ewing, Schroeer, and Greene's (2004) study is the first to examine the relationship between mode of travel to school and the full range of factors that might affect mode choice.

As can be seen from this short literature review, there is no study that has investigated factors affecting inter and intra-city travel mode choice in a single study. Also, there is no study that compares the importance of factors that play role in deciding travel mode choice in two different travel types. Therefore, this study aims to explore these two understudied areas together.

## METHODOLOGY AND FINDINGS

In order to achieve aforementioned goals, a survey developed from the literature and findings of ten exploratory interviews was conducted in five universities in five cities in Turkey namely Istanbul, Ankara, Konya, Kutahya and Eskisehir. Total 400 questionnaires were distributed and applied in a classroom environment, but 377 usable returns were received. Data was subjected to statistical analysis namely, paired sample t-tests, exploratory factor analysis, ANOVA, and independent samples t-tests. As can be seen in Table-1, respondents are almost evenly distributed in gender and family car ownership.

	N	%
<b>Gender</b>		
Female	192	50.9
Male	185	49.1
<b>Having driver license</b>		
Yes	168	44.6
No	209	55.4
<b>Family car ownership</b>		
Yes	194	51.5
No	183	48.5
<b>University type</b>		
Public	234	62.1
Private	143	37.9
<b>Personal Income and/or Allowances</b>		
Below 200 Euros	160	42.4
200 – 400 Euros	175	46.4
Above 400 Euros	42	11.2
<b>Family Income</b>		
Below 400 Euros	41	10.9
400 – 800 Euros	104	27.6
801 – 1200 Euros	90	23.9
1201 – 1600 Euros	39	10.3
Above 1600 Euros	103	27.3

Table 1. Sample Characteristics

Around 45 percent has a driver license and two-thirds are studying in public universities. Almost 90 percent of the respondents have an income or allowances below 400 Euros per month. Lastly, family income figures indicate that only ten percent of the students come from the poorest families in Turkey. On the other hand, 27 percent of university students are coming from higher income families.

Eight factors were identified from the literature and exploratory interviews. Mean scores and paired sample t-test results are shown in Table-2. As can be seen in the table, means scores are higher in all eight factors in intra-city travels. In other words, students consider these eight factors more seriously when they decide their travel modes on intra-city than inter-city travels. In order to see whether there are statistically meaningful mean differences, paired-sample t-tests were utilized. Results indicate that there are significant differences in five factors, but environmental concerns, feeling free and reducing stress factors are not statistically significant.

Factors	Travel Type	Mean	t scores	Sig. (2-tailed)
Price	Inter-city	3.94	-3.886	0.001
	Intra-city	4.10		
Safety	Inter-city	4.07	-5.908	0.001
	Intra-city	4.34		
Comfort	Inter-city	3.80	-9.243	0.001
	Intra-city	4.22		
Speed	Inter-city	4.04	-2.373	0.018
	Intra-city	4.14		
Prestige and Status	Inter-city	2.90	-6.146	0.001
	Intra-city	3.19		
Environmental concerns	Inter-city	3.29	-0.14	0.889
	Intra-city	3.30		
Feeling free	Inter-city	3.29	-1.146	0.252
	Intra-city	3.35		
Reducing stress	Inter-city	2.99	-0.89	0.374
	Intra-city	3.04		

*Table 2. Comparing factors affecting inter and intra city travels and t-tests*

In order to reduce the list of factors to the basic dimensions, the data was subjected to two exploratory factor analysis by using Principal Component Analysis Extraction Method with Promax Rotation. The first one presented in Table-3 shows the results of the inter-city travel factors and the second one is the results of the intra-city travel factors. As Table-3 and 4 indicate, all statistics are supporting the use of factor analysis that reduced the number of reasons from eight to two. KMO test scores are also at the high end of the scale indicating that sampling is adequate. The Chi-square score of Bartlett's test of sphericity are quite high with very high level of significance. Also, Cronbach's Alpha scores indicating reliability of the measurement scales are above the acceptable percentage. Even though the total variances explained by the two components (65% and 59%, respectively) seem low, Hair et al. (1995) argue that it is common for social scientists to consider a solution which accounts for 60% or even in some cases even less of the total variance a satisfactory solution.



Components	Individual items	Loadings	
<b>Primary</b>  $\alpha = 0.58$	<i>Safety</i>	0.780	
	<i>Price</i>	0.733	
	<i>Speed</i>	0.705	
	<i>Comfort</i>	0.575	
<b>Secondary</b> $\alpha = 0.79$			
	<i>Feeling free</i>	0.899	
	<i>Reducing stress</i>	0.865	
	<i>Environmental concerns</i>	0.655	
	<i>Prestige and status</i>	0.560	
Eigenvalues		2.07	3.02
Variance explained (%)		27.2	37.8
<b>KMO= 0.750; Chi-Square = 667; sig. = 0,0001</b>			

Table-3. Factor Analysis for Inter-City Travel

Exploratory factor analysis results grouped eight factors under two components for both travel types as can be seen in Tables 3 and 4. They are named as primary and secondary components. Hair *et al* (1995) argue that naming of the components is not scientific and it is usually left to the researcher's subjectivity. However, the factor loadings indicating the correlation of each variable and component can provide some bases since the higher the factor loading, the more representative of the component is the variable. Primary components are safety, price, speed, and comfort. Items in this component represent economic factors and comfort issues. That is why they are named as primary factors. Secondary components are feeling free, reducing stress, environmental concerns, and prestige and status. Items in this component are related with the travel mode choice indirectly and called as secondary.

Components	Individual items	Loadings	
<b>Primary</b>  $\alpha = 0.67$	<i>Safety</i>	0.762	
	<i>Price</i>	0.554	
	<i>Speed</i>	0.720	
	<i>Comfort</i>	0.736	
<b>Secondary</b> $\alpha = 0.82$			
	<i>Feeling free</i>	0.870	
	<i>Reducing stress</i>	0.843	
	<i>Environmental concerns</i>	0.758	
	<i>Prestige and status</i>	0.646	
Eigenvalues		1.32	3.39
Variance explained (%)		16.5	42.3
<b>KMO= 0.795; Chi-Square = 808; sig. = 0,0001</b>			

Table 4. Factor Analysis for Intra-City Travel

In the light of exploratory factor analysis, eight factors were merged in two components and paired-sample t-tests were run to explore whether the importance of factors in deciding travel mode choice differ statistically or not. As can be seen in Table 5, results indicate that there are statistically meaningful differences between the means of primary and secondary components affecting inter and intra-city travel mode choices. It is clear from the results that when university students make a choice on travel modes, they take this issue seriously regardless of it is a short or a long one. However, when they travel inter-city, they could accept that this journey would take relatively less time and they give less importance to primary and/or secondary factors.

Travel Type and Components	Mean	t scores	Sig.
Intra-City Travel - Primary	4,19	9.08	0.001
Inter-City Travel - Primary	3,94		
Intra-City Travel - Secondary	3,23	3.05	0.002
Inter-City Travel - Secondary	3,12		

Table 5. Paired sample statistics and t-tests

Several more analysis were run to see whether variables presented in Table-1 make a difference in the importance of components affecting travel mode choice. Results of independent samples t-tests (having a driver license, car ownership, and university type) and ANOVA tests (personal income and family income), reveal no statistically significant differences, except gender. Table-6 shows results of the t-test about gender. As can be seen in the table, females statistically give more weight to components in deciding which travel mode to choose than males in all factors, except the secondary components in inter-city travel.

Factors	Mean	Std.Dev.	t scores	Sig.
Intra-City Travel – Primary				
Female	4,27	0.44	2,54	0.012
Male	4,12	0.67		
Inter-City Travel – Primary				
Female	3.32	0.95	2,19	0.029
Male	3.10	0.94		
Intra-City Travel – Secondary				
Female	4.03	0.54	3.07	0.002
Male	3.84	0.60		
Inter-City Travel – Secondary				
Female	3.18	0.88	1.26	0.21
Male	3.06	0.92		

Table 6. Independent sample statistics and t-tests

## CONCLUSION AND DISCUSSION

There are millions of university students in the world. Even though the number is vast, there are neither enough studies related to the student's travel preferences nor factors that affect travel mode choice in different travel types. After exhaustive literature review, it was clear that there need to be more studies undertaken in this important market. After identifying these gaps, an extensive research project was undertaken in which these findings are a part. Integrating exploratory interview findings with the existing literature resulted eight factors along with traveler characteristics that play role in the choice of travel mode. Eight factors were subjected to exploratory factor analysis which reduced these factors to two main components, namely primary and secondary. Further statistical analyses indicate that there are meaningful differences between the means of primary and secondary components affecting inter and intra-city travel mode choices. Analysis also illustrate that university students give serious consideration to factors affecting travel mode and travel type.

The findings have important implications for theory and practice. For theory, there is a need for further studies which will take multi-disciplinary approach to the area. Also there is a need for cross-cultural studies as each society has its own values affecting the decision making process. This research has taken the consumer's perspective, but also it may be studied from suppliers and policy makers perspectives. Since travelling will be more and more with increasing globalization and new technologies, suppliers and policy makers will need more information about the customers of this industry. These types of studies may provide much needed information to all parties that have a stake in this field to make effective and optimal decisions. Similar studies on sub-market (e.g. elderly or handicapped) could supply very important and valuable information to policy makers which in turn they could use to organize government future policies in the travel sector to have the best outcome for whole society.

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## ACCOUNTING REGULATION OF OUTSOURCING ARRANGEMENTS AND PUBLIC PRIVATE PARTNERSHIPS UNDER IFRIC 4 ADOPTION

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### ABSTRACT

*The aim of paper:* The objective of the present paper intends to pursue is to analyze the impact and scope of IFRIC 4 accounting changes, in relation to concession services in enterprises and service dealerships public works in Italy through a first organic literature survey on the subject (Laghi, 2010, Head, Georgiou, 2011; Campra, 2012; Braja, Campra, Esposito, Ricci, 2013).

*Research methodology:* The methodology of this research is theoretical and empirical (Yin, 1984, 1995, 2000), based on the systematization of theories with empirical verification of the evolution of business models analyzed, up to outline possible future situations. We propose to improve a theoretical framework on PPP and service for outsourcing arrangements and evolution in the Italian, European and international comparisons.

*Expected results:* This scientific investigation can be regarded as a starting point to develop new lines of research and future research on PPP falling within the IFRIC 4 application, including through international comparisons, analyzing business models and specific economic sectors of public interest.

**Keywords:** *IFRIC 4; IFRIC 12; PPP; outsourcing arrangements; telecommunication contracts; accounting regulation*

### INTRODUCTION

The objective of the present paper intends to pursue is to analyze the impact and scope of IFRIC 4 accounting changes, in relation to concession services in enterprises in Italy through a first organic literature survey on the subject (Laghi, 2010, Head, Georgiou, 2011). The paper also aims:

- (i) to analyze and systematize the clarification provided by IFRIC 4 (Heald, Georgiou) and IFRIC 12 (Laghi, 2010; Campra, 2012: 2675), in relation to service concession for concession operators providing a public service;

- (ii) to determine to what extent IFRIC 4 helped to improve the order and to simplify the conceptual vagueness and chaos of definitions applying to the different forms of PPPs and SCAs under IFRIC 4 and IFRIC 12 adoption too. How much evidence does currently exist in the literature subsequent to the introduction of IFRIC 4.

The proposed systematization of business literature, even in the presence of a weak and not systemic defense of the doctrine on the subject, would make it possible, to highlight in a systematic manner the weaknesses linked to the application of contractual PPPs and SCAs in Italy, detected by different scholars with regard to the adoption of IFRIC 4.

The methodology of this research is theoretical and empirical (Yin, 1984, 1995, 2000), based on the systematization of theories, like starting point to with empirical verification on the evolution of business models to analyze, up to outline possible future situations. We propose to improve a theoretical framework on service for outsourcing arrangements and evolution in the Italian, European and international comparisons.

This scientific investigation can be regarded as a starting point to develop new lines of research and future research on PPP falling within the IFRIC 4 application, including through international comparisons, analyzing business models and specific economic sectors of public interest.

## METHODOLOGY

The research methodology is both theoretical and empirical:

- Theoretical framework of Outsourcing Arrangements and telecommunication contracts and its evolutionary path in the Italian, European and international context. Review of literature;
- Significant analysis of literature through a survey process according to the different applications of IFRIC 4 and the interpretive positions by various organizations (World Bank, OECD, the IASB, EFRAG, Eurostat, OIC, AVL, Court of Auditors);
- Analysis of development applicative models based on differentiating variables, highlighted by the empirical analysis (case method. Triangulation: sources, methods, results);
- Case studies (Yin, 1984, 1995), "testing", new areas of investigation.

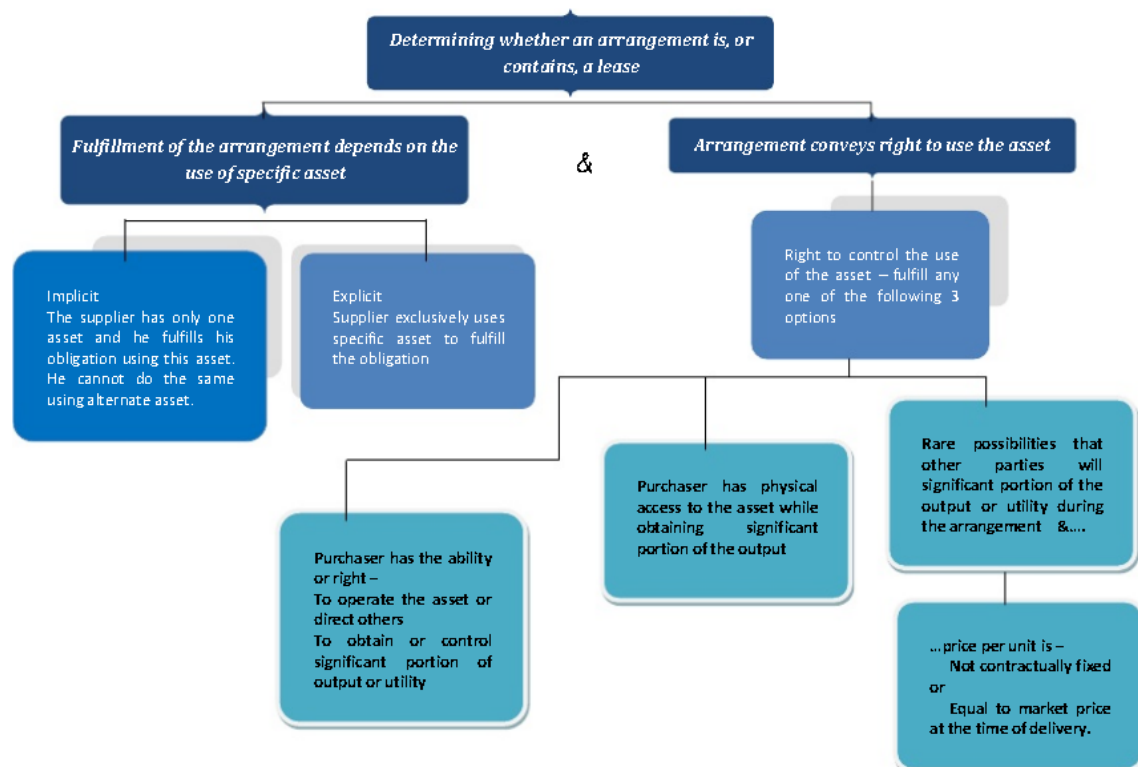
## IFRIC 4

IFRIC 4 addresses the problem of outsourcing arrangements and telecommunication contracts which are legally not a lease, but which involve obtaining the use of an asset in exchange for payment (Cook, 2009; Venter, Tones, 2006; Coetzee, Schumliam, 2008; Heald, Georgiou, 2011). The interpretation requires that such arrangements are accounted for in accordance with IAS 17 where certain specified conditions are met. In fact, an entity may enter into an arrangement, comprising a transaction or a

series of related transactions, which do not take the legal form of a lease but conveys a right to use an asset (eg. an item of property, plant and equipment) in return for a payment or series of payments. Examples of arrangements in which an entity (the supplier) may convey such a right to use an asset to another entity (the purchaser), often together with related services, include :

- outsourcing arrangements ( eg the outsourcing of the data processing functions of an entity;
- agreements in the telecommunications industry , in which suppliers of network capacity (network capacity) enter into contracts to provide purchasers with rights to capacity ;
- contracts "take or pay " and similar contracts , in which purchasers must make specified payments regardless of whether they take delivery of products or services agreed upon ( for example, a contract "take or pay " to acquire substantially all of the production of a generator of electricity of a supplier).

#### IFRIC 4 – DETERMINING WHETHER AN ARRANGEMENT IS LEASE



In some arrangements, the underlying asset that is the subject of the lease is a portion of a larger asset. IFRIC 4 does not address how to determine when a portion of a larger asset is itself the underlying asset for the purposes of IAS 17.

However, arrangements in which the underlying asset would represent a unit of account in accordance with IAS 16 or IAS 38 are within the scope of this interpretation.

## IFRIC 12

IFRIC 12 in spite of IFRIC 4, gives guidance on the accounting by operators for Service Concession Arrangements (SCAs) between a public body and a private company, it does not specify the accounting by grantors, and provides for the concession assets, once verified some objective and subjective conditions (Laghi, 2010: 127), an alternative way to recognize them. In fact, infrastructure within the scope of this Interpretation shall not be recognised as property, plant and equipment of the operator because the contractual service arrangement does not convey the right to control the use of the public service infrastructure to the operator. Infrastructure shall not be recognized as material activity (highways, water supply, etc.), but as a right to charge users (intangible asset); or a right to receive consideration from the grantor for utilities paid (financial assets); or a mixed method, forked method (Campra, 2011; Braja, Campra, Esposito, Ricci, 2013). The agreements regulating the different concession services in the recurring form of PPP (Parker, Gould, 1999; Pisani, 2001; Grimsey, Lewis, 2005; Guthrie, 2005), fall within the scope of IFRIC 12 (Campra, 2012: 2675) and the different accounting treatment of the operator's rights on infrastructure, depending on the different tasks of control and regulation to be provided to the public on behalf of the public sector in accordance with the terms specified in the contract for a specified period of time (Hall, 2008), and on the identification and detection of the party on whom demand risk stays (Campra, Faraudello, Malfatti, Passarani, 2011).

The accounting treatment of "Service Concession Arrangements" (SCA), ruled by IFRIC 12, represents one of the most significant and emblematic cases of the application of the principle of the prevalence of substance over form (Meyer, 1976; Shere, 1986; Adwinckle, 1987), to highlight "typical light and shade" of a principle which is the basis of IAS/IFRS accounting model (Laghi, Giornetti, 2009; Laghi, 2010). It is a significant case because it falls within the definition perimeter of the concession services (SCA), all forms of public-private partnership and Project financing, particularly focused and copiously considered and debated in the business literature over the past fifteen years (Vecchi, Amatucci, 2008). Service Concession Arrangements" (SCAs) refer to those forms of PPP projects through which a public sector entity (grantor), entrusts to a private sector entity (operator), the concession to construct or to operate a public work or infrastructure, in order to perform a public service in the public interest, upon consideration, and resulting in deep functional privatization processes (Pivato, 1958; Amaduzzi, 1978: 227; Caramiello, 1988: 546; De Robertis, 1992; Guatri, 1992: 498; Kunz, 1997; Perfolini, 1999; Dell'Atti, 2001; Rijna, 2010). The operator's consideration may consist in a right to charge users of the public services (intangible asset), or in an unconditional contractual right to receive cash or another financial asset (financial asset) from or at the direction of the grantor for the construction services (Campra, 2011; Laghi, 2010).



The discipline of IFRIC 12 is essential and also constitutes an "emblematic" case, even if it is partial and partially satisfactory, for the application of the principle of prevalence of the substance over form (Laghi, 2010), since all aspects determining the accounting treatment of "service concession arrangements" (SCA), starting from the same definition of the scope of IFRIC 12, ending with the accounting models to be used for the purpose from the representation of the effects of SCA are "filled" by the continuous research of the representation in the "economic substance" (Heald, Georgiou, 2011), regardless of the legal form they are regulated the transfer of risk and responsibility for the realisation of the works or services under concession and the management of public services or in the public interest. The continuous research of the economic substance of the SCA, becomes a crucial condition for achieving the reliability of financial information and to avoid errors and distortions in relevant economic and financial communications (Braja, Campa, Esposito, Ricci, 2013).

The interpretation of IFRIC 12 also allows researchers to avoid confusion in the classification, measurement, and detection of SCAs involving public and private entities such as outsourcing contracts, contracts of network capacity, take-or-pay contracts, ruled instead by IFRIC 4 (Treasury, 2008; Heald, Georgiou, 2010; Laghi, 2010: 6); or even errors in classification of PPP, where the prevalence of economic substance is entirely public, as in the case study, and then can be traced in the discipline of IAS 20.

Among other positive aspects of IFRIC 12, there is the attempt to improve the budgetary information for investors, clarifying the nature and risks of the ASC, object recognition and measurement.

## **IFRIC 4, IFRIC 12, THE AREAS OF APPLICATIONS**

The interpretation of IFRIC 12 also allows researchers to avoid confusion in the classification, measurement, and detection of SCAs involving public and private entities such as outsourcing contracts, contracts of network capacity, take-or-pay contracts, ruled instead by IFRIC 4 (Treasury, 2008; Heald, Georgiou, 2010; Laghi, 2010: 6); or even errors in classification of PPP, where the prevalence of economic substance is entirely public, as in the case study, and then can be traced in the discipline of IAS 20.

IFRIC 4, do not apply to agreements, which:

- a) containing leases excluded from the scope of IAS 17;
- b) b) arrangements for concession services from public to private that fall within the scope IFRIC 12 Service Concession.

The issues addressed by ' IFRIC 4 are:

- how to determine whether an arrangement is, or contains, a lease as defined in IAS17;
- should be carried out when the assessment or a reassessment of whether an arrangement is, or contains, a lease ;
- whether an arrangement is, or contains, a lease, how the payments for the lease should be separated from payments for any other elements in the arrangement.

#### **IFRIC 4: DETERMINING WHETHER AN ARRANGEMENT IS, OR CONTAINS, A LEASE**

Determining whether an arrangement is, or contains, a lease shall be based on the substance of the arrangement and requires an assessment if :

- the fulfillment of the agreement depends on the use of a specific asset or more assets (the assets);
- the arrangement conveys a right to use the asset.

The fulfillment of the agreement depends on the use of a specific asset. Although a specific asset may be explicitly identified in an arrangement, it is not the subject of a lease if fulfillment of the arrangement is not dependent on the use of the specified asset. For example, if the supplier is obliged to deliver a specified quantity of goods or services and has the right and ability to provide those goods or services using other assets not specified in the agreement, then fulfillment of the agreement does not depend on specified asset and the agreement does not contain a lease. A warranty obligation that permits or requires the substitution of the same or similar assets when the specified asset is not operating properly does not preclude lease treatment. In addition, a contractual provision (contingent or otherwise) permitting or requiring the supplier to substitute other assets for any reason on or after the specified date does not preclude lease treatment before the date of substitution. An asset has been implicitly specified if, for example, the supplier owns or leases only one asset with which to fulfill the obligation and it is not economically feasible or practicable for the supplier to fulfill its obligation through the use of activity alternatives.

An arrangement conveys the right to use the asset if the arrangement conveys to the purchaser the right to control the use of the underlying asset. The right to control the use of the underlying asset is conveyed if any one of the following conditions is satisfied :

- the purchaser has the ability or right to operate the asset or direct others to operate in a manner it determines while obtaining or controlling more than an insignificant amount of the output or other utility of the asset;
- the purchaser has the ability or right to control physical access to the underlying asset while obtaining or controlling more than an insignificant amount of the output or other utility of the asset;

- the facts and circumstances indicate that it is remote that one or more parties other than the purchaser will take more than an insignificant amount of the output or other utility that will be produced or generated by the asset during the period of the agreement, and the price that the purchaser will pay for the output is neither contractually fixed per unit of output nor equal to the market price per unit of output current at the time of distribution of production.

The verification of whether an arrangement contains a lease shall be made at the inception, on the earlier of the date of the agreement and the date of commitment by the parties to the principal terms of the agreement, based on all the facts and circumstances. A reassessment of whether the arrangement contains a lease shall be made after the beginning of the same only in the event that any one of the following conditions:

- a) there is a change in contractual terms, unless the change only the renewal or extension of the agreement;
- b ) a renewal option is exercised or an extension is agreed by the parties to the agreement, unless the term of the renewal or extension had initially been included in the lease term in accordance with paragraph 4 of IAS 17.
- c ) there is a change in the determination of whether fulfillment is dependent on a specified asset;
- d) there is a substantial change to the asset, for example a substantial physical change to property, plant or equipment.

A reassessment of an arrangement shall be based on the facts and circumstances as of the date of the inspection, including the remaining term of the agreement. Changes in estimate (for example, the estimated amount of output to be delivered to the purchaser or other potential purchasers) would not trigger a reassessment.

#### **IFRC 4 AND IAS 17: IF AN ARRANGEMENT CONTAINS A LEASE**

If an arrangement contains a lease, the parties to the agreement must apply the provisions of IAS 17 to the lease element of the agreement, unless exempted from those requirements in accordance with paragraph 2 of IAS 17. Accordingly, if an arrangement contains a lease, that lease shall be classified as a finance lease or an operating lease in accordance with paragraphs 7 to 19 of IAS 17. Other elements of the arrangement not within the scope of IAS 17 shall be accounted for in accordance with other Standards. In application of the provisions of IAS 17, payments and other consideration required by the arrangement shall be separated at the inception of the agreement or upon a reassessment of the arrangement into those for the lease and those for other elements on the basis of relevant fair value (fair values).

The minimum lease payments for the lease as defined in paragraph 4 of IAS 17 include only payments for the lease (i.e. the right to use the asset) and exclude payments for other elements in the arrangement (e.g. for services and the cost of inputs). In some cases, separating the payments for the lease from payments for other elements in the arrangement will require the purchaser to use an estimation technique. For example, a purchaser may estimate the lease payments by reference to a lease agreement for a comparable asset that contains no other elements, or by estimating the payments for other elements in the arrangement by reference to comparable agreements and then deducting these payments from total payments under the arrangement.

If a purchaser concludes that it is impracticable to separate the payments reliably, it shall:

- in the case of a finance lease, recognize an asset and a liability at an amount equal to the fair value ( fair value ) of the underlying asset. Subsequently the liability shall be reduced as payments are made and shall recognize an imputed finance charge on the liability recognized using the marginal interest rate of the purchaser;
- in the case of an operating lease, treat all payments under the arrangement as lease payments for the purposes of compliance with the disclosure requirements of IAS 17.

## **IFRIC 12 AND IFRIC 4: SOME EVIDENCE FROM ITALY**

From the empirical analysis conducted on the financial statements of listed Italian companies under IFRIC 4 and IFRIC 12 adoption, we have reorganized the classification of enterprises in different sectors, according to economic activity, mainly focusing on IFRIC 4 adoption. In particular, we first created three macro-sectors that are related to the type of output produced. The economic sectors analyzed, are:

- Transport;
- Energy;
- Water.

The Italian companies under IFRIC 12 adoption, consist of n. 28 listed groups, of these, the Italian companies under IFRIC 4 never investigated in the literature are 4. They are represented in the table below and in the following economic sectors (according to information from Borsa Italiana website – [www.borsaitaliana.it](http://www.borsaitaliana.it)):

Table 1: Italian Listed Companies under IFRIC 12 and IFRIC 4 Adoption

Listed Companies	Economic Sector
A2A	Energy
Acea	Energy
Acegas	Energy
Acque	Water
ACS	Energy
Aeroporto di Firenze	Transport
Ascopiave	Energy
Astaldi	Transport
Atlantia	Transport
Autostrada	Transport
Autostrade Meridionali	Transport
Edison	Energy
Eni	Energy
Enia (*)	Energy
Ferrovie Nord Milano	Energy
Plus	Transport
Hera	Energy
Impregilo	Energy
(*)	Transport
Mediterranea delle Acque	Energy
Save	Water
Snam Rete Gas	Transport
Terna	Transport
Terni Energia	Energy

(\*) on 1 July 2010 ENIA S.p.A was merged by incorporation in IRIDE S.p.A. resulting in IREN S.p.A.

The companies in each macro-sector can be further subdivided according to the production process adopted.

Below, we present information contained in the consolidated reports on the IFRIC 4 adoption:

- **ASTALDI GROUP:** "In this context, contract, Codelco, will deliver cutting waste mining promising to buy the amount of copper and molybdenum extracted thus ensuring the recovery of its investment during the period of ownership. In the light of what is expressed in the preceding paragraphs, the Company considered that the contractual terms of the Agreement constitute, in accordance with IFRIC 4, a lease agreement and then proceeded to the accounting records to that effect. "
- **EDISON GROUP:** " IFRIC 4: "The decrease in net debt (1,271 million euro), reflects, in addition to the aforementioned sale of Edipower, the combined effect of the following factors:
  - capital investments for the year (459 million euro);
  - payment of direct taxes (190 million euro);
  - net advances paid for the activation of take or pay clauses in natural gas procurement contracts (18 million euro).

- **TERNI ENERGIA GROUP:** *"The revenues related to energy efficiency with public and / or private respectively fall within the scope of IFRIC 12 and IFRIC 4. These types of contracts are composed of two elements:*

*- The first part of a contract (the increased efficiency) originates, in turn, two types of revenue:*

*o The first is equal to the fair value of the canon of energy efficiency (calculated as the present value of expected cash flows using market parameters faced by municipalities to achieve medium to long term).*

*o The second, caused by the apparent misalignment between the time the costs for carrying out the activity and recovery in fifteen years (or for years of term of contract) of its revenue each year generates a financial asset.*

*This Financial activities and related economic components operational and financial fifteen years are determined in compliance with the matters described in the document "Application no. 3 OIC - IFRIC 12 Service Concession Arrangements "in the chapter on financial asset model and the combined provisions of IAS 17 and IFRIC 4 for contracts with private entities."*

- **SNAI GROUP:** IFRIC 4:"Leasing

*The definition of a contract as a lease (or contains a lease) is based on the substance of the arrangement of whether the fulfillment of the agreement depends on the use of one or more specific activities or if and the arrangement conveys a right to use the asset. A review is done after the commencement of the contract only if one of the following conditions:*

*1) there is a change in contractual terms, other than a renewal or extension of the contract;*

*2) a renewal option is exercised or extension granted, unless the term of the renewal or extension was initially included in the lease term;*

*3) there is a change in the condition according to which fulfillment is dependent on a specified asset;*

*4) there is a substantial change.*

*Where it is subject to a review for scenarios 1, 3 or 4 above, lease accounting commence or cease from the date on which the circumstances that gave rise to the review. Where it is subject to a review for scenario 2 above, lease accounting commences or ceases on the date of renewal or extension.*

*For arrangements entered into prior to January 1, 2005, the date of inception is deemed to January 1, 2005 in accordance with the transitional requirements of IFRIC 4. "*

## CONCLUSION

The interpretative usefulness of IFRIC 4 is essential in order to avoid confusion in the activity of classification, measurement and recognition of ASCs involving public sector entities and private sector entities, such as outsourcing contracts, contracts of network capacity, take-or-pay agreements, all

regulated instead by IFRIC 4 (Laghi 2010: 6), or even errors in the PPP framework, where the prevalence of economic substance is entirely public, as in the selected case study, and then having reference to the discipline of IAS 20.

However, several authors in the literature reveal that the centrality of the interpretative complexity is an effect and not just source of greater needs of public finance (Laghi, 2010).

Our empirical investigation, underline the evidence of a scarce use of IFRIC 4 guidelines after its IFRIC 4 adoption from the Italian listed companies, in spite of literature treatment on the accounting regulation on outsourcing arrangements and telecommunication contracts.

It seems, in addition, that the alleged confusion of the adoption of IFRIC 12 and IFRIC 4, nothing has been found in the selected sample into the analysis. Poor, inadequate and it is also the accounting information in the financial statements of the company, which adopt IFRIC 4.

The present investigation, therefore, makes it necessary, in order to refute or confirm the low adoption of IFRIC 4, also in other European countries by companies operating in the same areas and are characterized by the same dimensional characteristics and technical-productive.

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## THE MARKETING STRATEGY AS A DIFFERENTIATING FACTOR IN THE PROVISION OF ARCHITECTURAL SERVICES

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### ABSTRACT

The authors investigated how the implementation of a marketing strategy plan brings value to the architectural firm so as to assist in differentiating and competitive advantages. The subjective nature of the topic and the lack of studies in the study area, specifically in the Portuguese context, led to the choice of a qualitative approach through semi-structured interviews, complemented with secondary sources. The state of architecture in Portugal was analyzed from the potential clients, clients and architectural firm's point of view, with focus on the demand and the consumption behavior of these services. The interviews provided an understanding of whether architectural services firms use a formal marketing plan to guide their activity or another medium. The study indicated that the poor activity of Portuguese companies may be due to a lack of awareness of this kind of service from the consumer perspective and lack of, in most companies investigated, of integrated marketing strategy including differentiation strategies, customer orientation, long-term relationship and communication. The results of the study outlined strategic possibilities for the companies and managerial implications are discussed.

**Keywords:** *Architectural Service Companies, Customer Orientation, Relationship Marketing, Customization, Marketing Strategies directed to Architectural Services Firms.*

### INTRODUCTION

Many service firms, and in particular architectural companies, do not understand the importance of establishing a marketing plan as they often receive orders as a result of referrals based on the quality services provided to their customers. However, reputation is not enough to communicate all important messages about their skills and quality of work (Kolleeny and Linn, 2002). With increasing competition from high quality companies nationally or even internationally firms must now recognize that often professional services and their marketing strategies require an individualized approach by applying traditional marketing with the respective adaptations to this type of services environment (Kotler *et al.*,

2010). Morgan *et al.*, (1994) argue the priority of customer's orientation, while being consumer with specific needs, personalities and motivations. Other authors (McDonald and Madhavaram, 2007) refer to the importance of internal and external relationships as factors that influence a successful marketing project. Additionally, it is necessary to realize the importance of the degree of customization, standardization, differentiation, specialization and diversification in architectural services and how these strategies bring competitive advantage to the company. Finally, it is essential to analyze marketing practices developed by companies.

Given the importance of the construction and architecture sectors for Portuguese domestic economy (INCI, 2012) and the need for a paradigm shift to overcome the current financial crisis, this study sets forth to answer a set of questions to understand the adequate way to go forward. For this, it is necessary to assess whether the problem is a lack of understanding of the role of architecture, the inadequacy of the value of the provided services to the financial availability from people or if they are related to the lack of promotion of the work.

## METHODOLOGY

Given the exploratory nature and the purpose of this study, two important themes were identified (see figure 1).

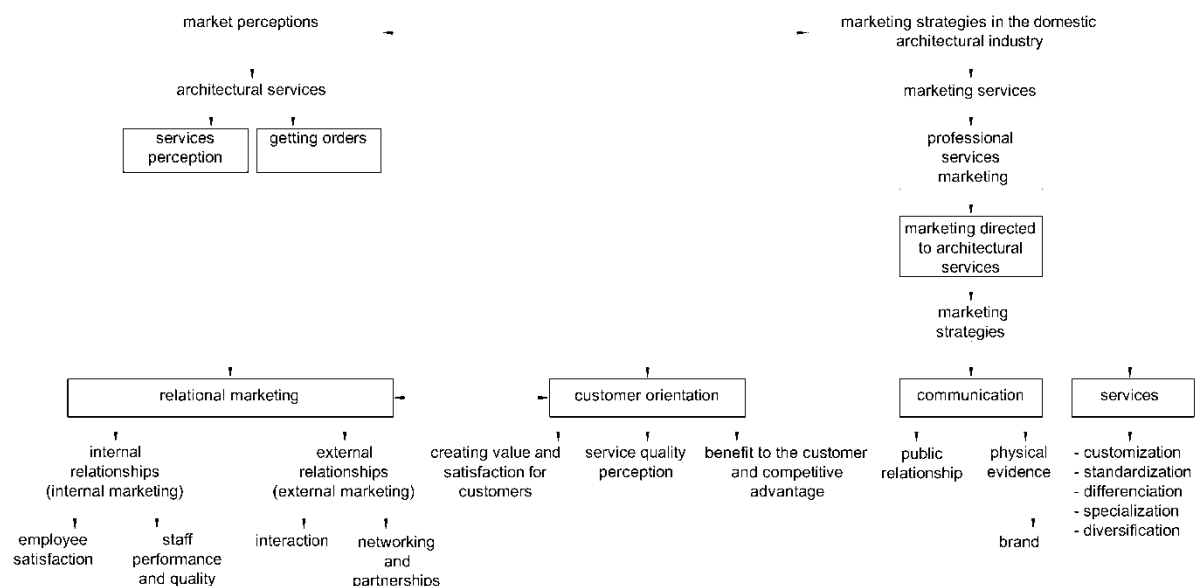


Figure 13. *framework for analysis*

The first theme focus on the analysis of market perceptions. In order to understand the state of Portuguese architecture industry, customers, potential customers and corporate managers perceptions are analyzed. This helps to understand the demand, buying behavior and motivations of each stakeholder.

The second theme corresponds to the actual marketing strategies in the domestic architectural industry. Issues as customer perceptions, implementation of marketing programmes, as well as how the sector is responding to the lack of demand are analyzed.

The literature review provided some analysis categories that, according to several authors, are related to these two themes mentioned above. Given the role and status of architecture in Portugal, as well as the main forms of attracting business and buying behavior, the analysis of market perceptions of these architectural services is essential. Regarding the architectural firms marketing strategies, it was possible to identify five important categories for its success: strategies and practices of services, customer orientation, relationship marketing, marketing directed to architectural service firms and communication.

The subjective nature of the topic and the lack of studies in the area (Morgan *et al.*, 1994) led to a qualitative approach. A qualitative research provides a depth understanding of motivations and feelings of people and companies (McDaniel and Gates, 2003), and allows exploring and contextualizing the demand in the architectural sector, especially the low demand, shading light on the offering conception. An exploratory research was developed, based on a combination of specific collected primary data and secondary sources. Initially, secondary sources were examined, including literature sources and statistics. These data allowed the researcher to clarify the research problem, assisting in the construction and selection of investigation paths. Subsequently, in a second phase, primary data were collected through in-depth interviews, semi-structured, directed to three groups: representatives of Portuguese architecture firms, people who have already acquired architectural services and people who have never bought architectural services. In the first group, the goal was to determine if companies apply marketing strategies and, if so, how these influence their activity. In turn, the second group interviews aimed to understand their experience and get their opinion regarding these kind of services, enabling the establishment of patterns of demand and purchase behaviors, and identifying some of the contracted firms marketing strategies perceived by customers. Finally, the opinions of people who have never requested architectural services were inquired, to shade some light on the reason for the little demand on these kind of services.

To facilitate data collection and in order to define a similar structure on the different interviews, there were outlined three scripts/guidelines for the three groups of participants, respectively. In the first phase of interviews, pre-tests were made. Then we proceeded to prior appointment of interviews via email, in which it was sent a document with an introduction on the theme, objectives of the study, and an explanation of how the interview would take place.

In order that the respondents feel as comfortable as possible, the interviews were personally conducted. in a place designated by them. Most of the participants participated in their residence (customers and

non-customers) and work place (architectural firms). All the interviews were recorded, with the respondent's permission, which ensures greater accuracy in report writing, and during its implementation notes were collected to verify that the questions were answered and also to enrich the analysis (Opdenakker, 2006). The interviews were considered completed when the theoretical saturation point was hit, that is at the moment the collection of information as brought additional knowledge to the research questions (Mack *et al.*, 2005).

After the interviews, and with the use of audio recordings the material was transcribed and saved in written documentation, which facilitated ~~their~~ interpretation (Flick *et al.*, 2004). After, the information was organized by analysis categories (presented above) in accordance with the identified patterns and, considering that the purpose of the study is to understand the experiences and opinions of respondents, it was held an interpretation and analysis of the collected data. Finally, the referred data were discussed.

## EMPIRICAL STUDY

The representatives of architectural Portuguese firms, clients and non-clients interviewed were selected non-randomly and for convenience, in view of their profile and willingness to participate in the study. Concerning sampling of customers, subjects were selected who had experience with different projects typologies in different companies, Relating to the surveys of architectural firms interviews, firms from different towns were collected so as to obtain a broad perspective.

It was carried out a total of 24 semi-structured interviews to: six representatives of architectural Portuguese firms were interviewed (6 men and 1 woman), seven customers who have already acquired architectural services (6 women and 1 man), and eleven consumers who have never benefited from architectural services (7 women and 4 men). Data was collected in Portugal in 2013, between January to February. Relating to standard sampling protocol and so as ~~In order~~ to make people and businesses feel more comfortable to talk about their experiences and opinions, the name of the respondents and companies remained anonymous.

## RESULTS

### *Architectural services and buying behavior*

The results indicated that the acquisition of architectural services is not a common practice for Portuguese consumers. One obvious gap is the lack of knowledge on this activity, namely on the importance of architecture in people's life and the perception of an elitist service only accessible to some people. In addition, people are not aware of the work that has been developed in this sector in Portugal and this is due to the lack of promotion in the area. This explains also the fact that the supplier

selection is made according to the advises of friends and acquaintances, that is, the potential customers contact architectural firms through referrals from people who have purchased such services, becoming professional experience of such firms for a second place.

#### *Services strategies and practices and customer orientation*

In general firms do not differentiate themselves from competition in the. However, they claim to be customer-oriented, since they consider customers as coauthors of the service in order to meet their needs. However, this point of view was not confirmed in its whole from customer's side, because each customer has needs and different personalities and the project typology varies. Thus, it is sometimes difficult for firms to consider all these specifics variables, because the customized services require more time and represent a higher risk of error. Results indicated that customers of standardized services are more satisfied, however, this kind of services corresponds to a niche market. In fact, customized services represent a large share of market of architectural services.

#### *Relationship marketing*

The importance of building long-term relationships with customers has also been identified by firms, but according to customers, it does not always happen. Results indicated that not all the customers of architectural services maintain contact with the firm or have been following the development of its work. This shows a lack of communication, disclosure, constituting a clear short-term relationship.

#### *Communication*

Results found that companies are far short of what could be their opportunity. They normally do not have a budget for advertising investment, limited only to seize opportunities and requests for publication. As for exploiting the potential of free media, including internet, they do it according to their availability, without great concern to retain customers and keep them updated. This happens because there is not a person responsible for it and from the area.

#### *Marketing directed to architectural services firms*

The research determined that marketing strategies are a differentiating factor in the provision of architectural services in the Portuguese market. Through this study, it was possible to justify its importance as an activity dynamo, and realize that marketing is still an area that needs to be explored in the field of architecture in Portugal.

## **CONCLUSION**

The research provides insights of academic interest for the professional sector and information on the perception of customers and non-customers about this activity, the customers experience, their main goals and needs and, finally, data on the marketing strategies adopted by architectural firms. However, this study was based on a qualitative research, making it difficult to generalize data.



It was possible to identify the reasons why the acquisition of architectural services is not a common practice for Portuguese people. One clear gap is the lack of awareness of general public regarding the importance of architecture in their life and poor knowledge of what this activity consists, being considered only accessible to some people. In addition, people are not informed of the work that has been developed in this sector in Portugal and this is due to reduced disclosure in the area. This also justifies the fact that the buying behavior is made from circle of friends and acquaintances, that is, potential clients contact architectural firms through referrals from people who have purchased such services, and only after they get concerned with professional experience.

Companies, in turn, do not seek to differentiate from the competition and position itself in the market to attract potential customers. However, affirm to be customer oriented, that are considered coauthors of service, towards satisfy needs. One problem was that in this sector each customer has different needs and personalities and the type of project varies. Thus, it is difficult sometimes for the companies consider all of these specifics because the customized services require more time and have a higher probability of error. Customers of standardized services are the most satisfied; however, this kind of services corresponds to a niche market. In fact, the customized services represent a large slice of market demand for architectural services.

The importance of cultivating long-term relationships with customers has also been identified by companies, but it was found, from customer's point of view, that does not always happen. That it, not all persons who acquired architectural services maintain contact with the company or have been following the development of its work. This shows a lack of communication, disclosure, clearly constitutes a relationship in the short term.

According to David Koren (2008) marketing in architectural firms relationship is everything. He states that "Relationships will influence the way that others perceive the individual architect and the firm. It is important that a natural affinity between the architect and the prospective client be developed that helps the client to like and trust the firm. Without this it is unlikely that the firm will prevail in the competitive situation" (p177). Long-term relationship dissatisfaction may also signal the misunderstanding about how importance a customer actually is in Portuguese management culture. According to a cooperative study done by Ad Capita Executive Search, a leading Portugal executive search firm and member of the INAC world-wide network with the Cranfield School of Management there is the lack of proper emphasis on customer importance (Bennett and Brewster, 2002). The data was collected from 130 foreign senior managers working at either the board level or senior professionals in Portugal and 34 Portuguese senior managers. Three fourth of the foreign managers reported that businesses and service providers do not devote themselves to provide an excellent service or even a better service. This would seem to be a condition that would result in a high chance that

consumers will not be satisfied clients. This possible customer dissatisfaction has a high probability that a lack of repeat business could result in firm instability.

Finally, the main strategy, present in everything previously stated, communication. In this field it was found that companies are far short of what could be their potential and do not generally have a budget for advertising. As for exploiting the potential of free media, including the internet, they do it according to their availability without great concern on retain customers and keep them updated. This happens because there is not one person on the area responsible for the marketing activities.

Thus, by way of conclusion, we can say that marketing strategies are a differentiating factor in the provision of architectural services in the Portuguese market. Through this study it was possible to justify the importance of marketing as a facilitator of the activity, and find that it is still an area that needs to be explored in the field of Portuguese architecture.

## MANAGEMENT CONTRIBUTIONS

The first recommendation to architectural firms, in particular to Portuguese government and the Associations in the field, is the fight against this activity depreciation. One of the strategies consist in raising people awareness and educating about its importance, not only in terms of functionality as well as aesthetic , well-being , spatiality , among others. For this, it is suggested the dissemination of practical cases and explanation of the choices made, taking into account the specific client, luminosity issues, spatial organization, budget, that is a kind of documentary that explains the importance of this activity and explains in what consists. Additionally, an overview of the current crisis and the lack of orders, calls for an architecture accessible to all, in order to guarantee the quality of all the designed spaces, providing welfare to people. Finally, the role of the architect is fundamental. It is important to clarify their activity, as something that fits the space and the specific desires of the client, in a language accessible to all people.

Besides the importance of communicating and educating consumers, another recommendation focus on customer orientation. Companies need to take into account the project typology in question, because, as already mentioned, the needs and goals of customers are different. While the goal of a housing project has to be comfortable for the person who will live there, the design of a commercial typology should attract people to enter and purchase there. At this point, the role of company employees is of utmost importance and should all be oriented to customer satisfaction. Finally, they must ensure that all clients' needs and objectives are met, at different levels, such as aesthetics, maintenance, durability, and especially functionality.

In this context, management of relationships is an essential tool for customer loyalty, as well as in the demand for repeat business or new projects via recommendation. Thus, it is important to

cultivate long-term relationships before, during and after service provision, using direct contact or through various communication strategies as mentioned above, for example, sending newsletters. However, one should not neglect the external relations through business partnerships, which are important sources in the detection of market opportunities, while serving as a complement of supplying architectural services. However, it must ensure that the partner companies are governed by the same principles and defend the same values, to avoid the risk of harming each other.

Teece (2010) in discussing business models and innovative strategy states that to improve a service company's performance, at least two aspects of management strategies should be implemented. The first aspect is big picture management strategy, business mode and to survive in a highly competitive market there needs to be a dynamic business model that can keep the company in a top competitive position. He states that this is a model that reflects a profound insight of customers' behavior, competitors' movement, technological opportunities and logic of organization. What clients want or how they want and pay for a company's product has to reflect on the model. How the competitors satisfy or do not satisfy customers' needs has to also incorporate into the model for a more precise response to customers' needs and a better customers' satisfaction. In addition to big picture strategy the firm needs a focus-problem management strategy and to provide a better service and retain a good long term relationship with customers, service companies need to, at least, do three things. Teece outlines these as: (1) Companies have to set their services (providing to customers) as their profit strategy. Not only will the strategy push the companies to try to provide a better customer service, but also change and build the companies' culture to be more dynamic and energetic and indirectly provide an initiation of price war insulation; (2) Companies need to consider how to provide an efficient and effective way for customers to provide feedback recognizing that a proactive strategy is another good tactic for a service firm to get instant feedback on the relationship; and (3) need to keep tracking performance.

With these focus-problem strategies, the actions will not only address the customer-related problems, but have the potential to increase companies' reliability which is considered as the most important aspect among service quality criteria used for judging service quality, according to Academy of Management Executive at Kenan-Flagler business school (Berry, Parasuraman, & Zeithaml, 1994) and (Koren, 2008). With the implementation of both macro and micro management strategies, the companies can attract more new customers as well as create more repetitions of business transactions among existing clients. While addressing this firm's need to continue to external relations through business partnership to determine market opportunities and assure that other components, or branches, of the firm adhere to same principles and values, to avoid the risk of conflicting with one other.

Another recommendation is communication strategies. According to Berry (1994) Generally, almost all of the service products, especially architecture, are considered as a visual art. Therefore, these goods normally require a special approach such as professional photograph and quality three-dimensional simulations to individually portray both unique function and aesthetic beauty of each pieces. As the product needs the professional photograph to depict its quality, a service company desires the best method to reach out potential customers and gain public recognition and it can do by integrated media approach so both print and digital are equally important. He also states that it is important for the company to continuously run an ads campaign at least from three to six months in order to gain the expected recognition. Moreover, it is crucial for the company to assess the ads efficiency and effectiveness through benchmarking before and after the campaign. Berry stresses that the key to success for is not just a well-organized approach and excellent ads, but also the consistency. This consistence can be related to follow up and assessment of print media's feedback as well as consistency in actively updating the online platforms will increase website's reliability which make customers feel the urge to revisit and, later on, make them feel loyal to the site.

Participation in fairs works mainly in the beginning of an internationalization process, as a way for companies to be present in a new market, are also important. In particular, companies that hold capacity and skills that can be shared, should bet on conferences as speakers, as a way to demonstrate knowledge to the target audience.

Another communication strategy is the focus on physical evidence, that is all documents that are produced by the company, such as portfolios of work done, letterheads, envelopes, sheets of drawings and written documents of the projects, formatting mail, among others. These documents require financial investment, and should have good graphic presentation and must be designed according to the image of the company. The investment in merchandising, such as pens, notebooks, or other creative and appealing elements, can also be encompassed in physical evidence and as a way of disseminating brand identity. It also may be included the preparation of a creative Christmas card, or, for example, a postcard from the company's anniversary celebration, a date shared with customers and all the people associated with the company. These elements can be produced and sent in digital format (email) and / or in physical format (post office).

Physical space, is also important because it can influence opinion about their work. In this sense, companies may choose spaces that represent their way of thinking architecture or transmitting sensations to clients, including professionalism, trust, among others.

Finally, firm's values, ideas and philosophies, which will be present in all physical evidence, must be communicated and consistent with brand image.

Thus, an integrated marketing plan seems to be essential and a good guide for every company that work in competitive markets and seek to develop a quality offer. All staff in the company, and especially the administration, should be aware and involved in marketing strategies. Finally, given the customized nature of architectural services, it seems also important the inclusion of a marketing subject in architecture degrees.

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## CAN CSR REALLY CONTRIBUTE TO BRAND EQUITY? A FOCUS ON SOCIETAL COMMUNICATION

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### ABSTRACT

Previous research on corporate social responsibility generally focused on western countries. Studies conducted in non-Western countries have been far fewer. The present study aims to investigate the effect of the firm's societal communication on brand attitude and customer based brand equity in a non Western-developing country, Tunisia. The effect of individual moderator variables including religiosity, skepticism and consumer social consciousness is tested.

An experiment was performed among students manipulating three communication axes and two brands. Results show a significant effect of brand attitude on brand equity, but no impact of the societal communication on consumer brand attitude. Religiosity, and consumer social consciousness partially moderate the effect of societal communication on brand attitude, but no moderator effect is observed for skepticism.

**Keywords:** *societal communication, brand attitude, consumer based brand equity, experimental study, religiosity, consumer consciousness, skepticism, developing countries, ANOVA*

### INTRODUCTION

The increasing interest in corporate social responsibility (CSR) issues, particularly in Western countries, has given rise to a new form of communication called "societal communication" (Berens and Popma, 2014). The term "societal" refers to social and environmental dimensions of communication (Gabriel, 2003), the most communicated areas of CSR. Societal communication represents a valuable strategic asset for companies by bringing meaning to their brands, establishing their legitimacy (Suchman, 1995; Gabriel, 2003) and developing their brand equity (Keller, 1993). Therefore, it comes as no surprise that several international brands in industrialized countries are increasingly incorporating CSR dimension in their communication strategy (IKEA, Ben & Jerry's) (Benoît-Moreau and Parguel, 2007).

The relationship between company social commitments and consumers responses toward the company and its products has been widely explored (Mohr and Webb, 2005, Becker-Olsen *et al.* 2006, Brown and Dacin, 1997; Swaen and Vanhamme, 2004; Tian *et al.*, 2011). Findings mainly show a positive effect. Only a handful of studies have been conducted at a brand level (Benoît-Moreau and Parguel, 2007, 2011). There can be no doubt that brands play an important role in the firm's marketing strategy and in consumer behavior. A positive consumer attitude toward the brand and a strong brand equity (Keller, 1993) may increase the effectiveness of marketing tools, facilitate brand extensions and strengthen the brand in the marketplace (Benoît-Moreau and Parguel, 2007).

Moreover, it should be noted that the implementation of CSR as a strategic orientation of the company depends largely on economic, historical, and cultural contexts. In this sense, the practice of CSR in emerging markets is less developed than in industrialized countries. This can be explained by the limited availability of economic and social information, the multiplicity of opportunities for abuse, the low degree of freedom of expression, and the difference in degree of the consumer's social sensitivity<sup>1</sup> (Dober and Halme, 2009). Studies in developing countries' context need to be developed (Tian *et al.*, 2011; Ali *et al.*, 2010).

In Tunisia, and since the popular uprising of the 14<sup>th</sup> January 2011 which marked the end of 23 years of dictatorship, several companies have shown a growing interest in socially responsible actions and communicated their societal commitment (Orange , UBCI, Délice-Danone, Total). In this context, it would be interesting to consider the following research question: Does societal communication add value to the brand? What is the impact of societal communication on consumers' brand attitude and on brand equity?

The purpose of this research study is to test the effect of societal communication on consumers' brand attitude and on the consumer-based brand equity. More specifically, it aims to examine:

- the impact of societal communication on consumers' attitude toward the brand;
- the impact of brand attitude on brand equity;
- the moderating effect of consumer's individual variables (skepticism, social consciousness and religiosity) on the relationship between societal communication and brand attitude.

To meet these objectives, we conducted a between-subjects experimentation on 300 students, in which we tested several company brand communications for two brands. The following section reviews the literature on the concepts of CSR and societal communication. The conceptual framework, the experimental methodology and the findings are then presented. Finally the implications and limitations of the research are discussed.

## CSR AND SOCIETAL COMMUNICATION

Today, companies can no longer ignore the social and environmental impacts of their activities. The evolution of their legal context and the consumers' increasing societal consciousness have led firms to seriously consider environmental and social involvement (François-Lecompte and Roberts, 2006; Lantos, 2001) and to communicate about their societal commitment. Societal communication can take different forms from simple information about social and environmental actions to repositioning brands around the firm social engagement. According to Benoît-Moreau *et al.* (2010), the term "societal communication" refers to all forms of communication activities which deliver messages about environmental, social or societal engagements of an organization (company, brand). These engagements can take different forms such as donation, marketing expertise, human capital (for volunteering) or R&D dedicated to these causes (Benoît-Moreau and Parguel, 2007 ; François-Lecompte and Roberts, 2006).

Some studies show that consumers develop negative reactions (attitude, purchase intention) to companies that commit irresponsible acts (Mohr and Webb, 2005). However, the positive effect of firm societal involvement is more controversial. The effect of damaging actions on the consumer attitudes and evaluations is stronger than that of positive ones (Sen and Bhattacharya, 2001; Brown and Dacin, 1997). Communicating the firm's social engagements may influence the valuation of the company (Tian *et al.* , 2011; Creyer and Ross, 1997), the consumers' attitudes toward the company and its products (Sen and Bhattacharya, 2001; Brown and Dacin, 1997), their purchase intentions (Mohr and Webb, 2005; McDonald and Lai, 2011) , and their trust in the firm (Swean and Vanhamne, 2004).

Several variables can moderate the effect of CSR communication on consumer responses. These variables can be related to the company such as CSR activities' choice (Sen and Bhattacharya, 2001), perceived motivation of the company for these causes (proactive vs. reactive) (Becker-Olsen *et al.*, 2006) or the value of the donation (Dirk *et al.*, 2010). They may also be related to the consumer, such as personal support for the CSR issues (Sen and Bhattacharya, 2001) or beliefs about the CSR (Mohr and Webb, 2005). Although brands represent a real asset to the firm, the available literature on the effect of CSR communication at the brand level is limited.

## SOCIETAL COMMUNICATION, BRAND ATTITUDE AND BRAND EQUITY: CONCEPTUAL FRAMEWORK

Brand is an intangible asset and its value reflects its ability to influence consumer's behavior (Barwise, 1993). Thus, the brand has value only if it occupies an important place in the consumer's mind. The concept of brand equity expresses the strength of the brand (Keller, 1993). Farquhar (1990) defines it as "the added value that a brand brings to a product". Brand equity can be considered from a cognitive



point of view as "the differential effect of brand knowledge on consumer response to the mix of the brand" (Keller, 1993). Knowledge and awareness of the brand, brand associations as well as brand loyalty are among the main sources of brand equity formation (Keller, 1993; Yoo and Donthu, 2001).

#### *Brand attitude and brand equity*

Attitude is a learned predisposition to respond to an object or class of objects in a consistently favorable or unfavorable way (Fishbein and Azjen, 1975). Lutz (1991) found that the attitude acts as a "filter" for how an individual perceives objects. Apart from the considered definition, researchers recognize the cognitive dimension of attitude, i.e. the ability to predict or influence beliefs that a person has about a product or a brand. This cognitive dimension includes notoriety related to the brand and acts as a link between attitude and brand equity. Indeed, notoriety of the brand and associations largely determine brand equity (Keller, 1993) and are to a large extent shaped by consumer brand mental representations. Baldinger and Robinson (1996) found that two thirds of the brands considered in their research had market share increases when the attitude toward these brands becomes more positive. Furthermore, Dyson *et al.* (1996) found that consumer's statements about brand value were largely determined by their attitude toward the brand.

H1 –Attitude toward the brand has a positive effect on the brand equity. The more the brand attitude is strong the more the brand equity is high.

Some studies established that a company's CSR policy has a positive and significant influence on consumers' attitude toward the company or the brands it offers (Lombard and Louis, 2014 ; Mohr and Webb, 2005; Tian *et al.*, 2011). Ailawadi *et al.* (2014) identified a direct effect of CSR perceptions on consumers' attitude toward a store. This effect is generally positive and attitude plays a mediating role in the relationship between CSR perceptions and behavioral loyalty. The impact of social information on consumers' attitude was confirmed by some researchers: Swaen and Vanhamme (2004, 2005) and Folkes and Kamins (1999) found that negative social information degrades the consumer's attitude toward the company and its products. On the other hand, Sheinin and Biehal (1999) found that corporate advertising focusing on a firm's competencies and its environmental protection activities positively impacted consumers' attitudes toward the firm and to its product brands. Benoît-Moreau and Parguel (2011) found that environmental communication positively influences the strength and "favourability" of environmental associations to the brand, and therefore, enhances brand equity. On the cognitive level, the information provided by the societal communication can be the source of new beliefs and memory representations of the brand, or strengthens the representations already present in memory. Attitude can be considered as the result of cognitive and affective experiences of brands and their communication;

H2: Societal communication has a positive effect on brand attitude. The presence versus absence of societal communication improves brand attitude.

#### *Moderator effect of individual variables*

In the present research, we investigate the moderating effect of certain individual variables (social consciousness, skepticism and religiosity) on the relationship between social communication and attitude toward the brand.

#### *Social consciousness*

Social consciousness is the propensity for the consumers to “purchase goods and services which they perceive to have a positive impact on the environment, or uses their purchasing power to express current social concerns” (Roberts, 1995, p 98). Social consumer consciousness has often been seen considered as a moderator of the effect of societal marketing on the firm or brand evaluation (Sen and Bhattacharya, 2001; Aouina Mejri and Bhatli, 2014), or on the intention to endeavor a responsible behavior (Mohr *et al.*, 2001; François-Lecompte and Roberts, 2006). People who have a high level of social consciousness change their attitudes and behaviors toward brands in order to achieve an ideal of improving society. In this framework, we can assume that the communication of societal information has a greater effect for people sensitive and conscious about societal problems (Hoeffler and Keller, 2002).

H3: Social consciousness positively moderates the effect of societal communication on consumer brand attitude.

#### *Skepticism*

Skepticism is considered as a possible cognitive response to marketing actions. Obermiller and Spangenberg (1998) define skepticism toward advertising as the general tendency toward disbelief of advertising claims. It is considered as a general trait that varies across individuals and is related to general persuadability. Obermiller and Spangenberg (1998, p. 164) note that “if consumers are predisposed to not believe in advertising, a key route to persuasion is closed”. Companies try to develop a positive attitude toward their brands by means of communication campaigns. Mayer *et al.* (1993) reported that several studies in the United States have suggested that a large number of consumers are skeptical of environmental allegations. When consumers believe that an environmental claim is misleading, a decrease in their evaluations of the company’s products may be observed (Chen, 2010; Berens and Popma, 2014). High skeptic consumers could wonder about the motives behind the company’s environmental claim and perceive manipulative intent, which may lead to

resistance to persuasion (Campbell, 1995; Benoît-Moreau and Parguel, 2007). This could deteriorate attitudes toward the company and its brands. Given that skepticism is a cognitive response to marketing actions, we can assume that societal communication in the presence of skepticism would generate less favorable consumer attitudes toward the brand:

H4- Consumer skepticism negatively moderates the effect of societal communication on consumer brand attitude.

### *Religiosity*

The influence of religious beliefs on the individual and social behavior is widely discussed in the academic research (Hirschman, 1983; Sandickci and Rice, 2011). The degree of religiosity plays an important role in the lives of individuals and influences the formation of beliefs, knowledge and attitudes. McDaniel and Burnett (1990) show that religious commitment, measured by cognitive religiosity and behavioral religiosity, influence important evaluation criteria. Religiosity helps the individual to rationalize ethical behavior and influence its ethical position (Magill, 1992; Giorgi and Marsh, 1990). Religious consumers tend to be less materialistic (Burroughs and Rindfleisch, 2002). Indeed, religiosity preaches the idea of modesty and collectivism and encourages being selfless and offering assistance to the needy (O'Cass *et al.*, 2013). We can therefore assume that the consumer's degree of religiosity is likely to increase the effect of societal communication on his/her attitude toward the brand:

H5- Religiosity positively moderates the effect of societal communication on the consumer brand attitude.

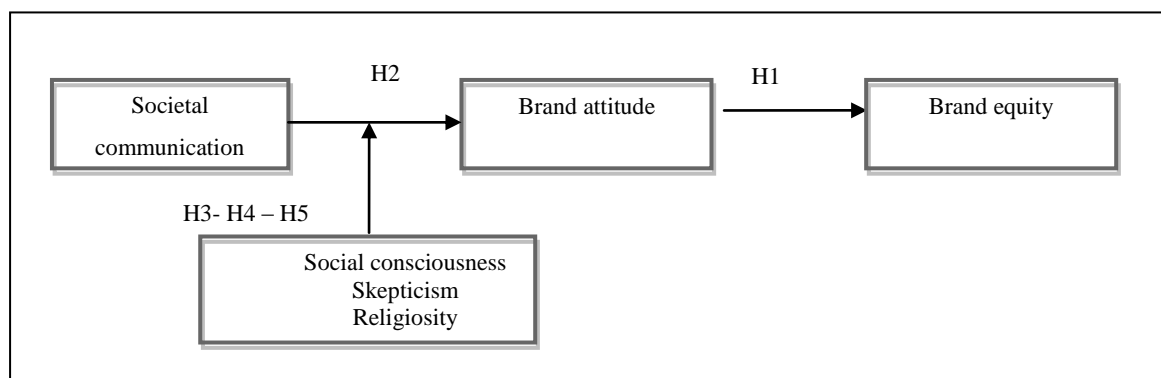


Figure 1- the conceptual model

## **METHODOLOGY**

### *The experimentation*

To test the effect of societal communication on consumer attitude and brand equity, we conducted a between-subjects design experimentation on 300 Tunisian university students with subjects randomly

selected to each treatment (50 students per treatment). A 3 x 2 design experiment (table 1) crosses three communication axes: neutral axis for control group and two forms of societal communication (social versus environmental) (Pontier and Sirieix, 2003), and two brands: “*La Rose Blanche*” and “*Carrefour*”. To ensure external validity, we chose two brands of two different industries “*La Rose Blanche*” represents the agro-food industry and Carrefour supermarkets represents the distribution industry. Both brands are well-known by Tunisian population and therefore by our students sample.

			Brands	
			<i>La Rose Blanche</i>	<i>Carrefour</i>
Communication axis	Group 1	Social	Treatment 1	Treatment 4
	Group 2	Environnemental	Treatment 2	Treatment 5
	Groupe 3 (control)	Neutral	Treatment 3	Treatment 6

Table 1- Factorial design of the experimentation

The experimentation stimulus is a color print of the website home page of each of the two brands (*La Rose Blanche* and *Carrefour*). For the control group, the homepage is not modified. It presents the logo of the brand and a description of the company’s activities. To test the effect of the presence of a societal communication on attitudes, we added to the homepage print an information block (text) describing two forms of societal communication, social and environmental (one homepage with social communication and one homepage with environmental communication). We did not add images illustrating social or environmental action to avoid the bias resulting from the choice of the image. To collect data we used a face to face questionnaire. The questionnaire was pretested on 25 students

#### *Variables measures*

The constructs are measured with Likert 7-point scales, all borrowed from the literature. The factorial and reliability analysis led on scales showed good reliability: brand attitude scale (Baggozi, 1978, three items, one dimension,  $\alpha=0.86$ ), customer-based brand equity (Yoo and Donthu, 2001, four items, one dimension,  $\alpha=0.86$ ), skepticism (Mohr *et al.*, 1998, four items, one dimension,  $\alpha=0.66$ ), religiosity (Worthington *et al.*, 2003, two dimensions, three items for spiritual religiosity,  $\alpha=0.86$  and four items for behavioral religiosity,  $\alpha=0.82$ ). For the social consciousness scale, we only borrowed two dimensions (environmental and CSR performance) from the Web *et al.* (2008) scale, since the third dimension (recycling structures) is unusual in the Tunisian context. Factorial analysis resulted in four dimensions: “Environmental consciousness” (three items,  $\alpha=0.83$ ), “Consciousness of helping people in difficulty” (two items,  $\alpha=0.86$ ), “Consciousness of company serving the community” (three items,  $\alpha=0.86$ ), and “Consciousness of company HR management” (two items,  $\alpha=0.73$ ). Each construct is measured by the mean scores of its items.

## RESULTS

### *Effect of brand attitude on customer-based brand equity*

Results of the linear regression performed to test the effect of brand attitude on brand equity indicate a significant and positive effect, thus supporting H1. The coefficient of determination is  $R^2=0.36$  ( $F = 173$ ,  $p = 0.000$ ) and the standardized regression coefficient is  $\beta = 0.607$  ( $p \leq 0.01$ ). The more the attitude is strong, the more the brand equity is high.

### *Effect of societal communication on brand attitude*

A one way ANOVA was performed to test the effect of societal communication (three modalities: the two forms of societal communication and control group) on brand attitude. The equality of variances condition was checked. Results (table 2) show no significant effect of societal communication on brand attitude. H2 is not supported for each of the two brands: societal communication has no direct effect on brand attitude. Table 3 presents the mean scores of brand attitude and brand equity variables. As it is shown in the table, the mean scores do not vary enough to induce significant effect.

		df	F	Sig	
Effect of societal communication on brand attitude	<i>Rose blanche</i>	2	1,452	0,238	NS
	<i>Carrefour</i>	2	0,564	0,570	NS
Effect of societal communication on brand equity	<i>Rose blanche</i>	2	1,383	0,254	NS
	<i>Carrefour</i>	2	0,745	0,477	NS

Table 2- *Effect of societal communication on brand attitude: ANOVA results*

			Brand	Brand equity
Neural communication (control group)	<i>La Rose Blanche</i>	Mean score	4,80	3,89
	<i>Carrefour</i>	Mean score	5,02	3,50
Social	<i>La Rose Blanche</i>	Mean score	4,76	4,25
	<i>Carrefour</i>	Mean score	4,87	3,7
Environnemental	<i>La Rose Blanche</i>	Mean score	5,10	4,18
	<i>Carrefour</i>	Mean score	4,97	3,82

Table 3- *Mean scores for Brand attitude and Brand equity variables*

### *Moderator effects of social consciousness, religiosity and skepticism*

Analysis of covariance (ANCOVA) was performed to test the moderator effect of individual variables on the relationship between societal communication (independent variable) and brand attitude (dependant variable). Dealing with the variable “*skepticism*”, no moderator effect was observed. H4 cannot thus be supported. Societal communication does not influence the brand attitude whatever the level of consumer skepticism. Concerning the variable “*social consciousness*”, results are divergent depending on the brand and the variable dimension (table 4). For example, regarding the brand *La*

*Rose Blanche*, three of the four dimensions of social consciousness have a moderating effect on the impact of societal communication on brand attitude: "Consciousness of helping people in difficulty", "Consciousness of company HR management" and "Environmental consciousness". However, regarding *Carrefour* brand, only the dimension «Consciousness of company HR management» moderates the effect of societal communication on brand attitude. Hypothesis H3 cannot be rejected, it is partially supported.

Mixed results are observed with respect to the variable "*Religiosity*". Table 5 shows no moderating effect of religiosity for the brand *La Rose Blanche*. In contrast, religiosity moderates the effect of societal communication on brand attitude in the case of the brand *Carrefour*. We cannot reject H5, it is partially supported. The positive sign of  $\beta$  indicates that religiosity positively moderates the effect of societal communication on brand attitude.

	Interaction between independent variable and	F	Sig	$\beta$	effect
<i>Rose blanche</i>					
SC I- Consciousness of company helping people in difficulty	Axis* SC I [axis=S] * SCI [axis=E] * SCI [axe=NI] * SCI	2,263	0,084 0,078 0,062 0,771	0,161 0,248	S**S ** S** NS
SC II: Consciousness of company serving the	Axis * SCII	2,095	0,103		NS
SC III : Consciousness of company HR Management	Axe * SCIII [axe=S] * SCIII [axis=E] * SCIII [axe=NI] * SCIII	4,128	0,008 0,064 0,194 0,888	0,205 0,211	S* S** NS S*
SC IV : Environmental consciousness	Axis * SCIV [axis=S] * SC IV [axis=E] * SCIV	0,668	0,050 0,666 0,037	0,244	S* NS S*
<i>Carrefour</i>					
SCI	Axis * SCI	0,933	0,427		NS
SCII	Axis * SCII	0,618	0,604		NS
SCIII	Axis * SCIII [axis=S] * SCIII [axis=E] * SCIII	2,675	0,050 0,006 0,727	0,283	S* S* NS
SCIV	Axe * SCIV	1,234	0,300		NS

NB : Axis S social communication axis, E : Environnemental communication axis, N: neutral axis (control group) - (\*) sig 5% (\*\*) sig 10% NS : non significatif

Table 4- Moderator effect of social consciousness, ANCOVA results

	Interaction between independent variable and	F	Sig	$\beta$	conclusion
<i>Rose Blanche</i>	Axis * Religiosité I	<b>0,393</b>	<b>0,758</b>		<b>NS</b>
<i>Carrefour</i>	Axis * Religiosity I	5,102	0,002	0,331	<b>S*</b>
	[axis=S] * Religiosity I		0,007		S*
	[axis=E] * Religiosity I		0,103		NS
	[axis=N] * Religiosity I		0,024		S*
<i>Rose blanche</i>	Axis * Religiosity II	2,028	0,113		<b>NS</b>
<i>Carrefour</i>	Axis * Religiosity II	2,832	0,040	0,245	<b>S*</b>
	[axis=S] * Religiosity II		0,017		S*
	[axis=E] * Religiosity II		0,143		NS
	[axis=N] * Religiosity II		0,497		NS

Axis S : Social communication axis

Religiosity I : spiritual religiosity

Axis E : Environnemental communication axis

Religiosity II : Behavioural Religiosity

Axis N: Neutral communication axis (control group)  
effect

N S: non signifactive moderator

S: significative moderator effect

(\*) sig 5% ; (\*\*) sig 10%

Table 5: *Moderator effect of Religiosity – ANCOVA results*

## DISCUSSION AND CONCLUSION

The present research investigates the role of societal communication in brand attitude formation and brand equity building. In an-experimental study, subjects were exposed to one of six versions of a “brand presentation” printed webpage, varying across two brands (*La rose Blanche* and *Carrefour*) and three communication axes (social / environmental communication versus neutral for the control group). The effect of individual moderating variables is also tested.

Findings underline the positive role of brand attitude in brand equity building in a context of societal communication. In line with Dyson *et al.* (1996) and Baldinger and Robinson (1996), our research confirms that the ways on which a consumer thinks and feels about a brand determines its value to its owner. This implies that any changes in the components of the marketing mix such as communication, changes consumer attitudes toward the brand, its mental representations, and consequently influences brand equity. Nevertheless, surprisingly, a significant direct relationship between societal communication and brand attitude cannot be established. Several explanations can be proposed. The first relates to the cultural context of the study. Indeed, in developing countries, such as Tunisia, corporate social responsibility is not yet well developed. Furthermore, CSR faces several constraints including legal, economic, institutional and business practices (Dober and Halme, 2009; Jamali and Mirshak, 2007). Consumerism, which heavily contributed to the emergence of CSR in developing countries, is another recent phenomenon in emerging countries which “is marked by immature conceptions” (Yan and She, 2011, p. 254). This may result in a lack of sensitivity and

interest of consumers for sustainable development and CSR. The significant moderator effect of consumer social consciousness on societal communication impact enlightens this relation and reinforces our first explanation. Maignan (2001), Mohr and Webb (2005) and Sen and Bhattacharya (2001) point out that the impact of CSR on consumer attitudes must be considered in a contextual framework by industrial and demographic specificity countries.

Another explanation may be linked to our methodological choices: The website printed copy stimulus used in this research may not be sufficient to induce a change in consumer response. We just used text description of societal corporate commitment, without images. A third explanation may be the possible existence of a mediating variable which is not considered in this study, such as the consumer perception of CSR.

Finally, the results provided evidence that the impact of societal communication on consumer brand attitude can be moderated by individual variables: consumer social consciousness and religiosity. Nevertheless, this moderation varies with the considered brand and the dimensions of the variable.

The degree of consumer skepticism, contrary to our prediction did not moderate the social communication and brand attitude relationship. According to El Akremi (2004), it is sometimes difficult to highlight moderating effects due to their low impact on how they are supposed to moderate. Furthermore, and contrary to the Western consumers, Tunisian consumers may be still asking for advertising and publicity as symbols of an envied and desired Western way of life (Üstüner and Holt, 2010). Then, they may present a relatively homogenous low level of skepticism. Finally, the use of Western originated scales to measure moderating variables may explain the inconsistency of results. The low reliability index value for the skepticism scale ( $\alpha = 0.66$ ) could be such an example of the lack of adequateness of these scales.

At the managerial level, our research, highlights the fact that improving consumer brand attitude leads to an increase in brand value. Otherwise, companies deciding to communicate their social or environmental engagement in order to improve their brand attitude and brand value have to do it, not only via their website, but in a visible way, using diverse communication media for a greater impact. Some limitations should be mentioned in this research. A sample of students has the advantage of uniformity, but may not represent the entire Tunisian population. Instruments for measuring concepts, particularly social consciousness and skepticism may not match the experience and cultural context of the Tunisian consumer. The absence of specific measurement scales adapted to emerging countries may explain some results.

Some future research paths can be suggested. It would be interesting to conduct this study on brands of different product categories: utilitarian, hedonic or luxury products. The degree of involvement of consumers toward products may explain some results, and may moderate the effect of social



communication on the attitude or brand equity. A mediating variable, between social communication and attitude can be introduced in the model framework, like perception of the CSR communication or brand associations and brand image. A consciousness social scale adapted to the Arab Muslim and/or emerging countries will help improve the measure of this individual character. Furthermore, a replication of this study to other developing countries context will allow comparing, and may be explaining some results.

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## ENTREPRENEURIAL INTENTION IN UNIVERSITY STUDENTS

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### ABSTRACT

This research aim to analyse the entrepreneurial intentions of university students to know the factors that influence this behaviour, for this Theory of Planned Behaviour (TPB) of Ajzen is used as a theoretical basis, where Attitude Towards Behaviour, Subjective Norm and Perceived Behavioural Control have an influence on Entrepreneurial Intention; adding to this, the impact of University Education in Entrepreneurship. To validate the proposed model, a study with 245 university students was conducted. The findings of this study confirm that Attitude Towards Behaviour and Perceived Behavioural Control have a positive influence on Entrepreneurial Intention, where the impact of Attitude Towards Behaviour is greater. Subjective Norm has no direct influence on the Entrepreneurial Intention, however there is an indirect influence through Attitude Towards Behaviour and Perceived Behavioural Control. Additionally, University Entrepreneurship Education shows a significant relationship only with Perceived Behavioral Control, i.e., the better the University Education in Entrepreneurship, the better the Perceived Behavioral Control, which leads to increase the Entrepreneurial Intention. Finally, gender did not significantly influence on the model as to indicate that the model is different for men and women.

**Keywords:** *Entrepreneurship, Education, Attitude, Subjective Norm.*

### INTRODUCTION

Currently, people believe it is necessary to have more entrepreneurship to achieve higher levels of economic growth. In fact, empirical researchers support the idea of positive links between business or entrepreneurship activity and inexpensive results as innovation and bigger growth (Van Praag & Versloot, 2007; Oosterbeek et al., 2010). If we consider the previously mentioned idea, it is interesting to analyse the behaviour of these people: the entrepreneurs.

The image of the entrepreneurs has been addressed from several points of view and fields of knowledge where there is no common term to refer to the entrepreneurial concept (Alonso Nuez & Galve Górriz, 2008). Nonetheless, there are lots of definitions in history about the entrepreneurs, the same as behaviours that are assigned to these individuals. Among these behaviours we can mention the

generation of business, identification of business opportunities, the opening and management or the maintenance of the same (Yurrebaso Macho, 2012). It is said that businesses that are initiated by entrepreneurs with university education have a propensity to have a more meaningful impact in the economic growth (Robinson & Sexton, 1994), and to produce a higher number of jobs than those created by people without university studies (Dietrich, 1999). For this reason and in the academic area, there appears to be a growing interest towards entrepreneurship and towards all acts that contribute to encourage and promote the generation of companies, such as researches about explanatory factors in the training of entrepreneurial intention (Krueger & Brazeal, 1994; Krueger & Carsrud, 1993; Liñán & Chen, 2009; Shapero & Sokol, 1982; Veciana, Aponte, & Urbano, 2005).

According to the theory, intentions are a central aspect to understanding the process of starting a business and can be conceived as the first step to the generation of a new company. This is explained because the process of identification of opportunities is clearly intentional. In this way, the intention becomes a key aspect to understanding the entire process of start a business (Krueger 1993).

The reason for studying university students is that they have obtained characteristics that are especially positive in the direction of the entrepreneurial option, considering that in this phase the individual is in a good position to develop their professional career and therefore, more willing to accept some changes (Liñán, 2004). In fact, as it is mentioned in the Global Entrepreneurship Monitor (GEM) reports, to have a higher level of education is related to a higher tendency to create companies starting from the detection of an opportunity instead of starting a business motivated by necessity.

That is the reason why the aim of this study is to analyse the entrepreneurial intentions in university students from Chile, in order to understand the factors that have an important influence on the intention of creating a company.

## LITERATURE REVIEW

### *Education in entrepreneurship*

According to Karatko (2005) we cannot continue asking if education in entrepreneurship is important. In fact, this area of study has been studied in universities for more than 70 years. In accordance with Bell et al. (2004) in USA, entrepreneurship was recognized as a discipline only 40 years after and between the 70's and the 80's, lots of these programs were established in American universities. At the beginning of the 21<sup>st</sup> Century, there were more than 500 programs of this discipline in the country. Based on these arguments, it is revealed that there are 2 main factors that can help to explain the appearance and significance of education in entrepreneurship: the small and medium enterprises are carrying out a very important role in the economy, and there is the need of providing the necessary tools to create and develop businesses for the entrepreneur candidates (Giacomin et al., 2010).

In the measuring of the 2012 cycle of the GEM in Chile, 25% of the new entrepreneurs were professionals with university degree (lots of them, also with a postgraduate study). However, according to Poblete & Amoros (2013), education in entrepreneurship is not well assessed. In fact, only 59% of the experts consider that training in administration and commercial management of companies provides an adequate and qualified expertise to create new companies and to make existing companies grow, whereas the remaining percentage has a negative opinion about it.

As stated by Hills (1988), the aim of education programs in entrepreneurship is to encourage desirability in the entrepreneur (the wish of having an entrepreneurial career) as well as the feasibility (to have the necessary skills and knowledge to create and manage a company) in the entrepreneurial initiative. In addition to the behaviors of entrepreneur it is possible to add the identification of business opportunities, the creation of businesses and the opening and management of the business (Yurrebaso Macho, 2012). These behaviors are encouraged in the entrepreneurship programs along with promoting attitudes, capacities and tools to increase their chance of success. The previously mentioned objectives are related with the Shapero & Sokol model (1982) that points out that the intention to start a business is determined by the desirability and feasibility of carrying out the entrepreneurial initiative.

#### *Entrepreneurial intentions*

According to Krueger et al. (2000) the entrepreneurs are distinguished by their way of thinking that emphasizes the opportunities over the threats. In effect, the process of identification of opportunities is clearly intentional; therefore, the intentions can be conceived as the first step to create a new company. Thus, this intention becomes a key point to understand the entire process of entrepreneurship (Krueger 1993). The intentions of starting a business stand out from the attitudes towards entrepreneurship because not all individuals who desire to begin a business actually do it; as an example, people interested in beginning a business do not do it because of the negative understanding of entrepreneurship in their social environment (Giacomin et al., 2010). Additionally, to initiate a business without the proper knowledge involves a great risk, even if the person has strong entrepreneurial intentions. In fact, Krueger and Brazeal (1994) say that people are not entrepreneurs since birth but they become entrepreneurs.

In accordance with Ajzen (1991), intentions appears as the best indicator of the planned behavior; in addition, to create companies requires time and involves great planning. Consequently, entrepreneurial behavior is a type of planned behavior to which models of intentions are ideally convenient given that they can help explain and predict this entrepreneurial behavior (Krueger et al., 2000).

The two models that have been used in most of the studies of entrepreneurial intentions are the Business Event Model (Shapero & Sokol, 1982) and the Theory of Planned Behaviour of Ajzen (1987,

1991). These two models are very similar and both suggest that the intentions to initiate a business are, mainly, a function of attitude towards the creation of a business (Krueger et al. 2000).

The Business Event Model (Shapero & Sokol, 1982) explains that the decision to initiate an entrepreneurial activity requires a pre-existent belief that this activity is ideal and viable, a personal tendency to act on the opportunities and some kind of precipitant factor. The Theory of Planned Behaviour of Ajzen (1991) allows to interpret the intention of starting a business when it is conditioned by the result that the entrepreneur hopes to achieve, the expectations in their surroundings about their behaviour and the perception that the entrepreneur has of their capacity to control and achieve the results of their entrepreneurial action. This theory tries to predict and explain human behaviour with a focus on the intention of individuals to act as stated by a conduct given in the long-term, which makes this theory applicable to the creation of companies (Krueger et al., 2000).

The Theory of Planned Behaviour postulates the existence of three main elements that guide human behaviour: (1) *Attitudes towards behaviour*, (2) *Subjective Norms* and (3) *Perceived Behavioural Control*. This group of elements, according to Krueger et al. (2000) manages to explain even 60% or more of the deviation in the intentions. These intentions can predict 30% or more of the deviation in the objective behaviour when this model is applied.

*Attitude towards Behaviour* (AB) measures the positive or negative valuation of the person towards the result of the behaviour, in this case, the personal valuation towards starting a business. *Subjective Norm* (SN) shows the perception that people in the individual's surrounding would approve or reject the decision, in this case, of becoming an entrepreneur. The *Perceived Behavioral Control* (PBC) refers to the ease or difficulty perceived by the individual to control behaviour, in this case, of starting a business.

According to Sanchez (2013) students that have participated in programs of education in entrepreneurship have increased their competencies and intentions towards self-employment. In contrast, other studies have not proven to show that education in entrepreneurship has any positive impact on the entrepreneurial intentions (Gouveia et al., 2008); and even more importantly, some studies have shown evidence of negative effects (Fayolle & Gailly, 2009; Oosterbeek et al., 2010; von Graevenitz, Harhoff, & Weber, 2010).

## OBJECTIVES

The aim of this investigation is to analyse the entrepreneurial intentions of university students to know the factors that influence this behaviour, for this the Theory of Planned Behaviour (TPB) of Ajzen is used as a theoretical basis.

The hypothesis to be evaluated from the model, shown in Table 1, are applied in studies investigating entrepreneurial intentions by using Ajzen TPB. In addition, it has been proposed to include a variable

representing university teaching applied to entrepreneurship, in order to analyze the influence of entrepreneurial education on student's attitudes and perceptions of control towards entrepreneurial intention.

Hypothesis	Description
H1: AC $\rightarrow$ IE	Attitude Toward the Behavior positively influences Entrepreneurial Intention.
H2: CPC $\rightarrow$ IE	Perceived Behavioral Control positively influences Entrepreneurial Intention.
H3: NS $\rightarrow$ IE	Subjective Norm positively influences Entrepreneurial Intention.
H4: NS $\rightarrow$ AC	Subjective Norm positively influences the Attitude Toward the Behavior.
H5: NS $\rightarrow$ CPC	Subjective Norm positively influences Perceived Behavioral Control.
H6: EUE $\rightarrow$ AC	University Education in Entrepreneurship positively influences the Attitude Toward the Behavior.
H7: EUE $\rightarrow$ CPC	University Education in Entrepreneurship positively influences Perceived Behavioral Control.

Table 8. *Hypothesis of the study.*

## METHODOLOGY

The data used for the realization of this study were obtained through surveys applied to students of the Ingeniería Comercial program of the Departamento de Industrias of Universidad Técnica Federico Santa María, early in the first half of 2013. The information was obtained through an online questionnaire that was sent to student's institutional emails. After discarding incomplete responses, a sample size of 245 completed surveys was obtained.

In the following figure, we can find the path analysis using PLS method, also the figure shows the hypothesis evaluated from the structural model and the measurement model used for each theoretical construct of the structural model. All the indicators of the measurement model are reflective nature.

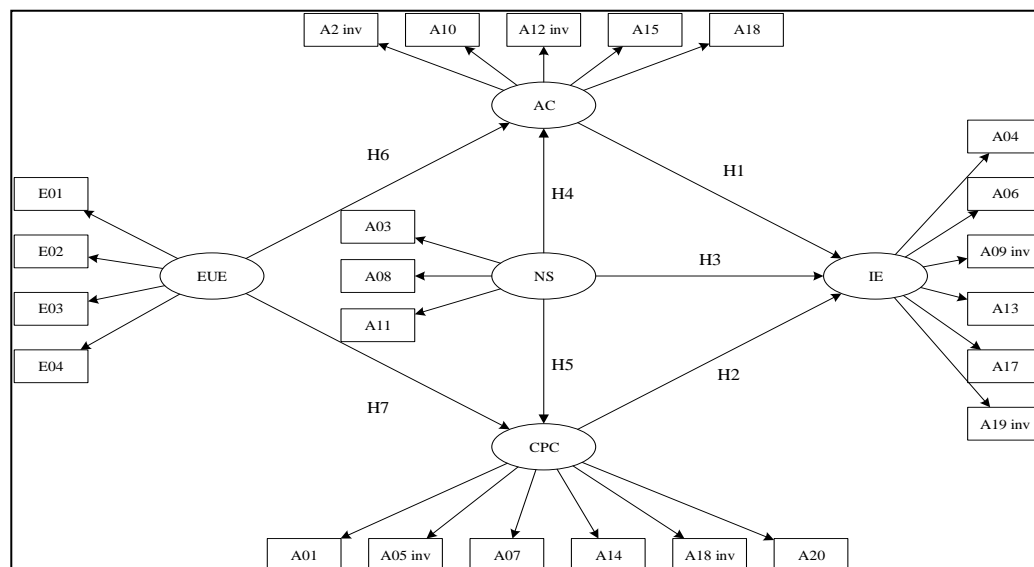


Figure 14. *Entrepreneurial Intention Model*



The figure above shows the constructs: *University Education in Entrepreneurship* (EUE), *Subjective Norm* (NS), *Attitude Toward the Behavior* (AC), *Perceived Behavioral Control* (CPC) and *Intention Entrepreneurship* (IE).

## RESULTS

Survey respondents considered 51% males as well as 71% of people between 21 and 24 years old. Regarding their working situation, 69.9% of them are studying and 25% are studying and working at the same time. Additionally, 29.4% of the students have had some independent working experience (self-employment). 67.8% of the survey respondents have an entrepreneurial role model and in the case of the students who decide to create a company, 42% of them prefer a big company, 46% a medium company and 11% want a small company. In general, students tend to agree more on following a professional career as entrepreneurs (5.32 points out of 7) than developing a professional activity in a private company (4.93 points out of 7). In addition, students declare themselves indifferent to work for an NGO or any other non-profitable organization and they are not willing to work in the public administration.

Model results are shown in Figure 2. By using Hair et al. (2011) criteria to evaluate the  $R^2$  determination coefficient that indicates a 0,75 for substantial, 0,50 for moderate and 0,25 for weak, an excellent predictive accuracy to explain *Entrepreneurial Intention* (IE) was found ( $R^2 = 0,742$ ). No signs of collinearity in any of the model cases were reported ( $VIF < 5$ ).

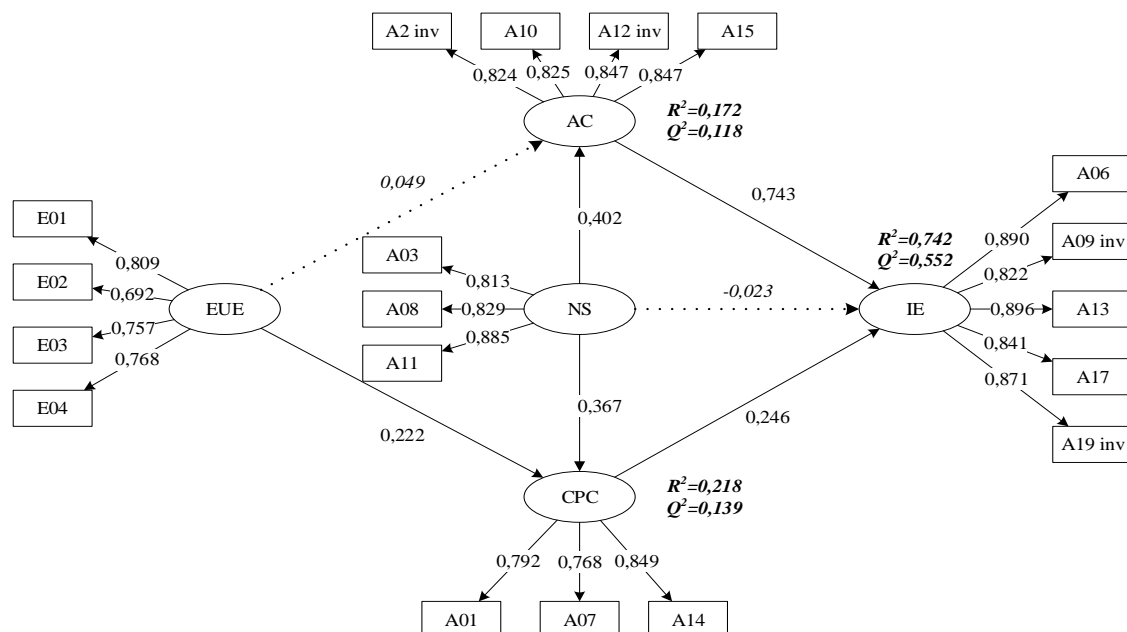


Figure 15. Results of Entrepreneurial Intention Model based on PLS-SEM

Once the statistical significance is determined, it is important to analyse the path coefficients to establish the relevance of these meaningful connections between the latent variables. It is relevant to

point out the great influence of *Attitude towards Behaviour* over *Entrepreneurial Intention* ( $\beta = 0,743$ ) followed by *Perceived Behavioral Control* ( $\beta = 0.246$ ) and therefore, accepting hypothesis 1 and 2. The *Subjective Norm* has a direct negative impact ( $\beta = -0,023$ ) over the *Entrepreneurial Intention*. This implies that hypothesis 3 is rejected while it has an indirect positive influence through *Attitude towards Behaviour* ( $\beta = 0.402$ ) and *Perceived Behavioral Control* ( $\beta = 0.367$ ) by accepting hypothesis 4 and 5. The variable of *University Education in Entrepreneurship* only achieves to significantly explain *Perceived Behavioral Control* ( $\beta = 0.049$ ), accepting hypothesis 6. On the other hand, *University Education in Entrepreneurship* has no significant relationship with *Attitude towards Behaviour* (which rejects hypothesis 7).

Relaciones	Indirect effects	Total effect	Significance level	p-value
AC $\rightarrow$ IE	-	0.7435	***	0.000
CPC $\rightarrow$ IE	-	0.2459	***	0.000
EUE $\rightarrow$ AC	-	0.0492	n/s	0.281
EUE $\rightarrow$ CPC	-	0.2224	***	0.000
EUE $\rightarrow$ IE	0.0816	0.0913	*	0.065
NS $\rightarrow$ AC	-	0.4022	***	0.000
NS $\rightarrow$ CPC	-	0.3672	***	0.000
NS $\rightarrow$ IE	0.3893	0.3666	***	0.000

Table 9. Results of the Entrepreneurial Intention Model. Note: \*\*\* $p < .001$ , \*\* $p < .01$ , \* $p < .05$ .

#### Descriptive analysis of Entrepreneurial Intention Model by gender

The following table shows descriptive statistics of the constructs of the *Entrepreneurial Intention* classified according to *Gender*.

Statistic		Gender	
		Male	Female
IE	Sample size	125	120
	Mean	5.34	4.99
	Median	5.61	5.20
	Standard deviation	1.41	1.42
AC	Mean	6.03	5.71
	Median	6.48	6.12
	Standard deviation	1.23	1.26
CPC	Mean	5.01	4.87
	Median	5.01	4.87
	Standard deviation	1.02	.95
EUE	Mean	4.10	4.29
	Median	4.16	4.31
	Standard deviation	1.26	1.20
NS	Mean	6.03	5.92
	Median	6.30	6.28
	Standard deviation	1.06	1.06

Table 10. Descriptive analysis of Entrepreneurial Intention Model by gender.

It can be observed that male students obtained higher scores than their female counterparts in almost every construct of the model with the exception of the perception on *University Education in Entrepreneurship*. In general, the higher scores were in *Attitude towards Behaviour* and *Subjective Norm* and the lower scores were in *University Education in Entrepreneurship* and in *Perceived Behavioral Control*. The *Entrepreneurial Intention* reached a score close to 5, which indicates that in general, students tend to lean slightly towards this behaviour. The next step was to make a statistic test to compare if these two groups are similar between them. For the gender category, the invalid hypothesis was rejected for the latent variables *Attitude towards Behaviour* and *Entrepreneurial Intention*. For this reason, the groups are different between them only for these two cases, in which male students have higher *Entrepreneurial Intention* in comparison with their female counterparts (median of 5.61 vs 5.20), along with owning a higher *Attitude towards Behaviour* of starting a business (median of 6.48 vs 6.12). Nevertheless, gender did not significantly influence on the model as to indicate that the model is different for men and women.

## DISCUSSION

This research confirm that *Attitude Towards Behaviour* and *Perceived Behavioral Control* have a direct and positive influence in *Entrepreneurial Intentions* ( $R^2 = 0,742$ ). The greater impact on *Entrepreneurial Intentions* is generated by *Attitude Towards Behaviour* ( $\beta = 0,743$ ), followed by *Perceived Behavioral Control* ( $\beta = 0,246$ ). *University Education in Entrepreneurship* shows a significant relationship only with *Perceived Behavioral Control* ( $\beta = 0,222$ ), namely, the better the *University Education in Entrepreneurship*, the better the *Perceived Behavioral Control*, which leads to increase the *Entrepreneurial Intention*. *Subjective Norm* has no direct influence on *Entrepreneurial Intention*, however there is an indirect influence through *Attitude Towards Behaviour* ( $\beta = 0,402$ ) and *Perceived Behavioural Control* ( $\beta = 0,367$ ). Thus the perception of approval or rejection from other people does not have an influence to the idea that the individual has a higher or lower intention of starting a business, but these perceptions are expressed in the positive or negative valuation towards behaviour and in the degree of perceived difficulty of control of it. On the other side, gender did not significantly influence on the model as to indicate that the model is different for men and women, however, by carrying out an univariate analysis of latent variables of the model, male students exhibit higher entrepreneurial intentions and higher attitudes towards the behaviour to start a business. Finally, some evidence was found regarding the influence of *University Education in Entrepreneurship* on *Entrepreneurial Intention* through *Perceived Behavioural Control*. However, the evidence also shows that *University Education in Entrepreneurship* does not affect the most important variable that allows the *Entrepreneurial Intentions* of the students to be explained: *Attitude Towards Behaviour*.

The practical implications of this study are that *Attitude Towards Behaviour* of starting a business should be encouraged given that these are the ones with bigger impact on student's *Entrepreneurial Intention*; and that the quality of *University Education in Entrepreneurship* should be improved as it generates an indirect positive impact on the intention of starting a business. As a recommendation, it is suggested to encourage students to start a business is a desirable, interesting and satisfying professional career, especially to female students as they obtained a lower score in attitudes towards starting a business and entrepreneurial intentions. In addition, it is suggested that this encouragement should be applied not only through compulsory and elective entrepreneurship courses but also through extracurricular events such as motivational speeches with entrepreneurs and workshops that teach new skills and useful methodologies to start a business.

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## A NEW ACTOR IN THE DEVELOPMENT OF SOCIAL INNOVATION: THE CASE OF TRENTORISE

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### ABSTRACT

In the current scenario, an increasing importance of social innovation is emerging, especially in front of this situation of crisis. For its close link with the local area in which it takes place, social innovation is deeply rooted in the overall system, and thus involves the action of many different actors. These parties should work synergistically to support social innovation and this requires an actor that play the role of intermediary, connecting demand, supply and all the parties: the *innovation catalyst*.

However, in spite of the existence of this kind of actors in practice, their role hasn't been formally included yet within the existing models of social innovation. To fill this literature gap, our work has been developed focusing on TrentoRise, an Italian *innovation catalyst* based in the Trentino Region, a case of excellence as innovation ecosystem. Applying a fresh and innovative framework, the Social Innovation Pyramid, the aim of this study is to understand the role that an innovation catalyst covers and the key features it has.

Based on a single case study, the analysis shows that an *innovation catalyst* is fundamental in developing an healthy and functioning innovation ecosystem and it should be included within the existing innovation models. Moreover, our results are useful in understanding how to replicate the model in other areas, helping at the same time regional policy makers to adapt it according to the characteristics of their own districts.

**Keywords:** *innovation catalyst, intermediary, innovation, social innovation, innovation ecosystem, Trentino, Triple Helix, Social Innovation Pyramid*

### INTRODUCTION

One of the pressing needs of our society is the increasing urge of enhancing innovation, most of all for the unprecedented and unexpected social crisis we are facing. Enhancing innovation means developing a network of public and private institutions, within which production, diffusion and application of new knowledge and technology takes place (Erikson et al., 2002; Vrontis and Thrassou, 2013). In this context, the concept of social innovation is becoming more and more prominent; in

particular, it is a form of innovation that explicitly aims for the social and public good (Harris and Albury, 2009). As defined by OECD (2010), social innovation seeks new answers to social problems, through new services, new labor market integration processes, new competencies, new jobs and new forms of participation. The biggest difference with economic innovation is that instead of introducing new types of production or exploiting new markets in themselves, social innovation aims at satisfying new needs not provided for by the market, or creating innovative ways to include people in the workforce, giving them a place and a role in the production.

Several models were developed to enhance innovation. One of the most cited is the Triple Helix Model (Etzkowitz and Leydesdorff, 2000), that considers the dynamic interplay of firms, Universities and the public actor. This model has been improved by Carayannis and Campbell (2009; 2010), who moved towards a Quadruple Helix Model and then a Quintuple Helix Model, to better capture all the roles involved within an innovation ecosystem.

These models are highly useful in capturing the complex interplay of involved roles within an innovation ecosystem. But, according to the literature on the topic of social innovation and analyzing these existent models, it emerges the lack of an actor that could play as intermediary among all the involved actors, as a sort of *innovation catalyst*. None of these models actually foresee an actor that plays as a pivot in guiding the action of all other actors. This gap is the starting point of the present work, aimed at investigating the usefulness of developing a new model in which the central role is covered by the innovation catalyst, as a specific actor that could foster the enhancement of social innovation. This kind of actor, in fact, becomes fundamental because the direct and indirect actors of innovation are highly different among each other and this diversity could prevent them from collaborate with ease. Thus, the need for intermediaries that can create the necessary link between the involved actors is widely felt. In fact, there is a notable absence of intermediaries able to connect demand and supply and to find the right organizational forms to put the innovation into practice (NESTA, 2007; Westley and Antadze 2010).

As it plays the unique role of combining actors' objectives, facilitating the interaction and collaboration between them and protecting, at the same time, the whole ecosystem the *innovation catalyst* can meet this need.

In this sense, the aim of this paper is to understand the role that an innovation catalyst covers and the key features it has. More specifically, the paper investigates the following research questions: *how the innovation catalyst may foster social innovation in an innovation ecosystem (RQ 1)? how the innovation catalyst should operate (RQ 2)?*

To answer the research questions, the paper focuses on Trento Rise, the most important example of innovation catalyst in Italy. TrentoRise is based in the Trentino Region, an area that in the last years

has become one of the best examples of virtuous and innovative ecosystem, a centre of excellence in Italy and Europe, in particular in ICT technologies.

To deeply analyzed this topic, between January and February 2014 face-to-face interviews with manager that cover top positions inside all the actors that are present in this innovation ecosystem have been carried out. At the same time primary and secondary sourced documents regarding the organization have been used.

Thus, this paper enriches the stream of literature on innovation models and ecosystem, on social innovation and, at the same time on intermediaries in the innovation process. The new actor we propose it is able to promote and foster social innovation in a innovation ecosystem through stimulating close cooperation and synergy between all the actors. This is the main contribution of the paper because there are many practical examples in the world, but very few studies analyze them and none provides an overview of these topics in order to highlight the role covered by the innovation catalyst and the key features that should have.

The remainder of the paper is organized as follows: in the next two sections a theoretical overview of the academic literature on social innovation is outlined, along with a description of those models developed to analyze the phenomenon. Afterwards, results of the analysis is presented, putting in evidence the main features of a successful *innovation catalyst*. Finally, in the conclusions sections our findings is discussed and managerial implication for policy makers and future line of research is proposed.

## **SOCIAL INNOVATION**

Among the first definitions of social innovation, is worth noticed the one coined in 2000 from the Local Economic and Employment Development Committee (LEED) of the OECD, in the framework of its Forum on Social Innovation (FSI). This was a multi-stakeholder forum, created with the main objective of facilitating international dissemination and transferring best policies and practices in social innovation. The definition they came up with, has its focus in the concepts of change, organizational change and changes in financing, and relationship, with stakeholders and territories. Basically, social innovation aims at finding new answers to social problems. This can happen mostly in two ways: by identifying and delivering new services that improve the quality of life of individuals and communities, and by identifying and implementing new labor market integration processes, new competencies, new jobs, and new forms of participation, to contribute improving the position of individuals in the workforce (OECD, 2010).



The need for social innovation arises from many social challenges that are resistant to conventional approaches to solving them. Social innovation means new responses to those needs and challenges, not only with its outcomes, but also with the processes it implements.

In the OECD definition a strong link between social innovation and local development is evidenced. Social innovation is a way to improve individuals and communities welfare, and explicit reference is made to new relationship with territories.

Many contributions on the topic focused on the boundaries and overlaps between social innovation and other related concepts. For example the term is often used interchangeably with “social entrepreneurship”. Even though the terms have much in common, social entrepreneurship refers to an entrepreneurial activity run for the achievement of a social mission. The emphasis on profitability is what differentiate it from social innovation. Social innovation does not necessarily involve a commercial interest nor an entrepreneurial activity, though it does not preclude such interest (Westley and Antadze 2010). The field of social innovation is wider as it transcends sectors, level of analysis, and method to discover the processes that produce lasting impact. It is correct to say that social innovation aims at modify the overall system in which social entrepreneurship can take form, creating the right framework and the strategy in which it can develop and operate (Phills *et al.*, 2008).

Also, the differences between business innovation and social innovation have been deeply investigated (Mulgan, 2006; Pol and Ville, 2009; OECD, 2010). The main difference lies in the fact that business innovation aims at introducing new types of production or exploiting new markets in themselves, while social innovation is completely driven by the goals of public good. However, it has to be noticed that this view is not shared by all the scholars (Kuznets, 1974; Pol and Ville, 2009). Somehow it could be argued that also business innovations generate benefits not only to the innovator, but also to other parties such as consumers and competitors, through a process that they called *innovation spillover*. From this perspective the concept of social innovation adds nothing to what we already know about innovation in itself and is too vague ever to be useful. Nevertheless, the key aspect is the way in which social innovations benefit human beings. The implied idea within this concept is that social innovation has the potential to improve either quality or quantity of life (Pol and Ville, 2009).

## HOW TO FOSTER SOCIAL INNOVATION IN AN INNOVATION ECOSYSTEM

Innovation is something really difficult to capture and appreciate in its all complexity and it is unpredictable because it is linked to creativity (Bresciani, 2010; Bresciani *et al.*, 2013). Being innovative means having the ability to analyze the shortcomings of the present, but above all, to imagine the challenges of the future (Heunks, 1998; Bresciani and Ferraris, 2012). Ideas growth, refining and

enrichment happen with various contributions, through circulation and, certainly, an open culture to innovation, inclined to see change as an opportunity rather than a threat that helps increasing the inclination to innovation (Chesbrough, 2003; Vrontis et al., 2012). Moreover, an innovation process cannot be engineered, designed from the top or planned at table, it is only possible increase the probability that the innovation happens. This probability tends to increase in societies where there is a greater inclination to innovation (Krause, 2004). If an innovation cannot be engineered, it is fundamental to implement an innovation ecosystem that makes it permanent, stable and self-generating, to increase the likelihood that it emerges (Adner and Kapoor, 2010).

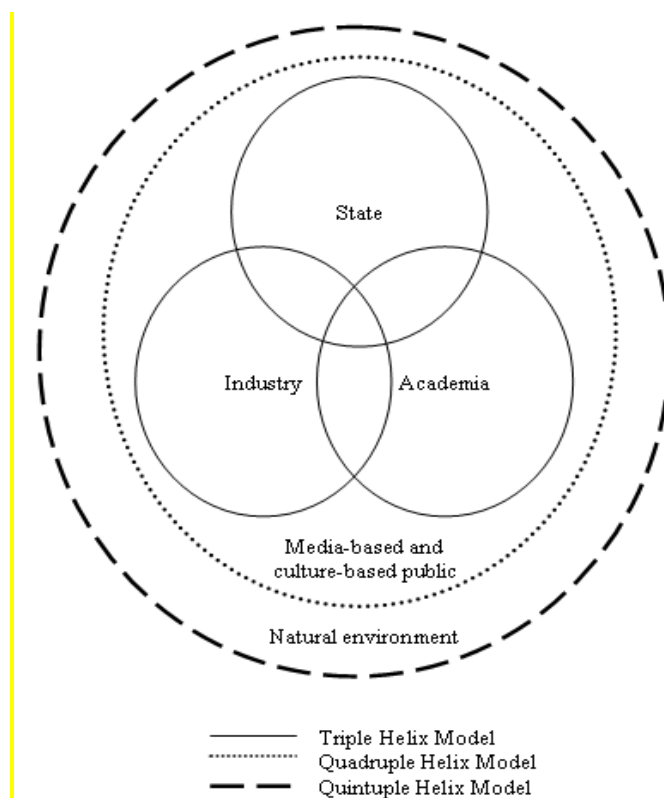
Within this ecosystem several actors are involved in social innovation processes, and many studies are aimed at analyzing their roles. In their contribution on scaling-up processes, Westley and Antadze (2010) identified the dynamics that affect the relationship between the supply and demand for social innovation, underlying the role played by the different actors. First, the vulnerable group, or the intractable social issue, that demand social innovation for its breakthrough. In response to this demand, the socio-entrepreneurial organizations strive to attenuate their needs. On the other hand, this supply cannot be financed by the users themselves, but a source of financing is needed and it can come from governments or charitable foundation, or both. The success of grant proposals depends not only on the evident needs of the vulnerable client group, but also on the skills of the grant writers in mediating such needs so as to fit the priorities of government programs. These priorities are highly affected by news media or research units that set the agenda for the government with respect to a particular vulnerable group or issue. This underline how social innovation requires a variety of actors, working in concert or separately. Thus, innovation processes are interactive. They can be better studied intellectually by specifying the actors and the linkages between those (Cooke et al., 1997). This study can be done using those models developed to explain how innovation comes out from the interaction of different parties. In this sense the Triple Helix Model, as developed and described by Etzkowitz and Leydesdorff (2000), is an important landmark within this field of study. It has been advocated as a useful method for fostering entrepreneurship and growth, analyzing the existing dynamics between three helices: state, academia, and industry. In a knowledge society, the Triple Helix thesis is that the potential for innovation and economic development lies in a more prominent role of the university and in the hybridization of elements from university, industry and government to generate new institutional and social formats for the production, transfer and application of knowledge (Ranga and Etzkowitz, 2013). As the authors stated, the relationship between the three actors span networks that enable and constrain flux of communication. Within this model, all the actors should have the same weight in the relations system, as together they generate a knowledge

infrastructure in terms of overlapping institutional spheres, with each taking the role of the other and with hybrid organizations emerging at the interfaces (Etzkowitz and Leydesdorff, 2000).

The Triple Helix model have been further widened, with the adjunction of elements that were supposed to better complete the framework from which innovation can come out. To this end, Carayannis and Campbell (2009) added the element of the public as a fourth helix, more precisely identified as the “media-based and culture-based public”. The authors justify the introduction of this helix explaining how both culture and values and the way in which reality is constructed and communicated by the media, highly influence every national innovation system. Public discourses transported through and interpreted by the media, are crucial for a society to assign top priorities to innovation and knowledge.

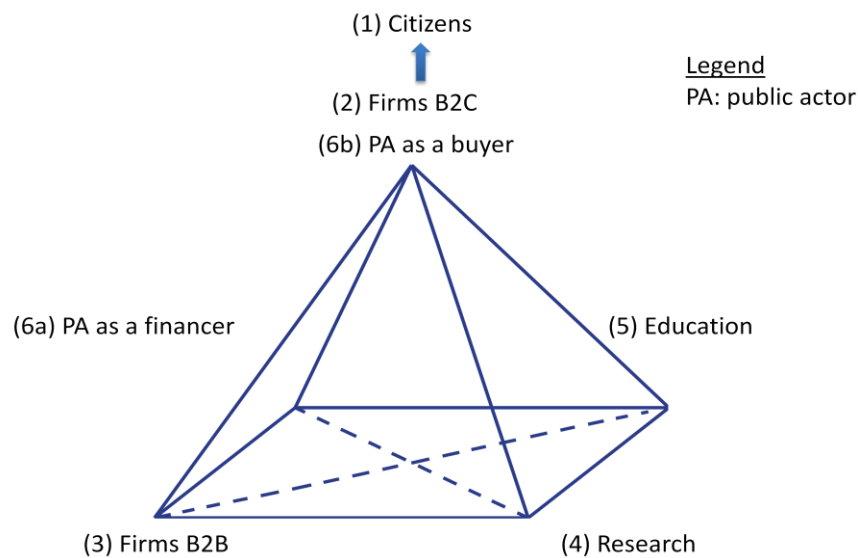
Afterwards, the same authors kept enriching the model adding a fifth helix that links to the established model, the role of the “natural environment or natural environments of society” (Carayannis and Campbell, 2010). With this configuration, the renewed Quintuple Helix model became an analytical framework for sustainable development and social ecology and outlines what sustainable development might means and implies for eco-innovation and eco-entrepreneurship, in the current scenario.

**Figure 1: The evolution of helices models**



*Source: adapted from Carayannis and Campbell (2010)*

Apart from the academic literature, a new managerial model has been proposed by Giunchiglia (2013). He moved a step away from the helices structure, proposing an innovative framework to analyze the involved actors under a pyramidal perspective that better suits the peculiarities of social innovation. In its Social Innovation Pyramid, actors are distributed among the top and the bottom (see Figure 2). At the top, the first actor is the citizen, or the whole society in a wider perspective with the final purpose of improving their quality of life. At the top of the pyramid an important role is also played by firms that create an innovation of service and product in a B2C business model, and by the Public Administration (PA) as buyer and main user of new products or services, making the creation, the bootstrap and evolution easier. This also facilitates the environment sustainability in a long time perspective because of being itself the main user and creator, laying the foundation for the future increase of private participation.



**Figure 2: The Social Innovation Pyramid**

*Source: adapted from Giunchiglia (2013)*

Other actors are involved at the bottom of the pyramid: a) firms which provide technological innovation, either as services or products to other firms in a B2B business model; b) the research system that provide *know-how* and skills to those firms; c) training and high training systems, which provide new personnel and transfer knowledge on a big scale, either to firms or research system and; d) the public actor that plays a role of financier. These are the direct stakeholders of innovation, while the indirect one are the political and the social parties system and the private lenders, including Venture Capitalists.

Giunchiglia (2013) highlights that the direct and indirect stakeholders of innovation are not sufficient to create an innovation ecosystem because of their diversity that prevents them from collaborate with

ease, in particular under three important dimensions: roles and responsibilities, objectives, and time.

Concerning the first dimension, research produces new knowledge and new researchers while training institutions must transfer skills; service companies (such as those that provide energy, mobility, connectivity) and the public actor provides services, while companies provide new technology systems. As for the second, researchers have the objective of expanding human knowledge, educators training students to quality, companies generating profit, the public actor providing the best services at the lowest possible cost. Finally, about the third dimension, it is clear that three years in research is a short period (just need to build a new skill), for training one year is often the minimum unit to measure the results, for companies the basic unit of time is the month because they have to pay monthly salaries. This diversity of roles, responsibilities and time frames makes the collaboration between the actors of the innovation ecosystem more difficult.

This overview evidenced the wide range of actors that social innovation requires. What emerges, however, is a lack of a certain kind of intermediary that in some way act as a link between all the different actors involved. In this sense social innovation can be seen as the result of a combination of “bees” and “trees” (NESTA, 2007). The first are small organizations, individuals and groups who have new ideas, the second are big organizations such as government or big companies which are generally poor at creativity but good in implementation and which have the resilience, roots and scale to make things happen.

The problem in this picture is how to connect bees and trees.

This need is also highlighted by OECD (2010) that in developing policy recommendations express the need for intermediaries as their absence in the social field is seen as a key reason why too few innovations succeed.

The solution is the creation of a convergent interaction among the different actors, aimed at producing concrete results, safeguarding both the specificity of each component and the diversity inherent in the ecosystem. It is needed, in other words, a component that promotes and accelerates the process of creating innovation, and these are the premises from which the *innovation catalyst* can arise.

Even if the literature review highlights the need for this kind of actor, the analysis of the existing models shows that an innovation catalyst is not foreseen by none of them. Nevertheless, our study on Trentino innovation ecosystem led us to conclude that in some cases, the innovation catalyst actually plays a pivotal role in fostering the enhancement of social innovation.

Thus, in this paper, we highlight the importance and the relevance of this missing actor and the key features it should have in order to fully satisfy his role of fostering social innovation within the ecosystem.

## METHOD

This paper emanates from an extensive study of the Trentino's innovation ecosystem sponsored by the University of Trento. Subsequently, these data, analyzed here for the case study, are utilized to explore the two research question, "*how the innovation catalyst may foster social innovation in an innovation ecosystem (RQ 1)*" and "*how the innovation catalyst should operate (RQ 2)*".

The case is an effective illustration of one organization's approach to managing multi-actor in an innovation ecosystem in order to foster social innovation. The case study (Yin, 2003; Eisenhardt, 1989) is not meant to be generalizable, but rather it is utilized here to inform theoretical development of the roles, tasks and benefits of a catalyst within an innovation ecosystem. The case site was chosen for both convenience (as mentioned the ecosystem had been studied previously) and as an exemplar case for exploring how one particular intermediate helps to manage the relationships between different actors with the final aim at fostering innovation.

The case study approach is useful in such exploratory modes of research and can provide detailed understanding of particular situations which may then be utilized inductively to create better theory, in this case how to a innovation catalyst can foster social innovation. Moreover, a case study methodology is appropriate when researching a 'how' or 'why' question about a contemporary set of events, over which the investigator has little or no control (Johnson, 2008). In this case an explorative approach has been adopted, the study has been based on the single-case (holistic) model (Yin, 2003), and the single innovation catalyst has been considered as the unit of analysis.

The data utilized in the case study of TrentoRise consisted of detailed interviews with actors from the Trentino ecosystems. In total, for this aspect of data collection 22 interviews lasting 2 hours on average were conducted. Other data for the case study consisted of primary and secondary sourced documents that the author had access to when studying the organization.

The organization studied, TrentoRise is the *innovation catalyst* in the Trentino ecosystem. It is a fully operational institution merging the ICT branch of the largest research institution in Trento - Fondazione Bruno Kessler - with the Department of Information Engineering and Computer Science (DISI) of the University of Trento, in a wide spectrum of scientific areas and human sciences. Its main goal is to play the unique role of combining all the actors' objectives, facilitate the interaction and collaboration between them and protect the whole ecosystem. To do that, it develops skills and relationships with the territory but also with Europe operating in a global perspective. In fact, it is a core partner of the European Institute of Technology (EIT) ICT Labs (the European answer to MIT) and part of EIT ICT Labs Italy. This means great advantages in terms of support, prestige, research project coordination and networking.

TrentoRise provides therefore an effective and almost ideal instrument to support the integration of education, research and business dimensions; in fact, its mission is to "act as an intermediary between research, education and business actively fostering social innovation through ICT". TrentoRise aims at promoting research to drive the internationalization and innovation of the territory and at becoming one of the leading hubs in ICT sector in Europe. Its activities are developed to: a) promote business development through innovation projects that meet societal needs; b) promote scientific research that creates added value for people, the market and the society at large; c) promote new business creation, fostering highly innovative startups in the ICT sector and d) attract highly motivated students by launching initiatives in the field of higher education offering not only academic but also entrepreneurial education.

## **TOOLS, ACTIVITIES AND FLAGSHIP PROJECTS OF THE INNOVATION CATALYST: THE CASE OF TRENTORISE**

In this section we propose a deeply investigation of the case study (TrentoRise) thanks to the information collected through interviews and documents, highlighting the tools and the activities used by promoting social innovation within the innovation ecosystem and the main flagship projects carried out by the catalyst.

In the Italian contest an excellent example of innovative ecosystem has grown in the Trentino Region, an area that in the last years has become one of the most important and virtuous centre of excellence in Italy and Europe in particular in the field of ICT technologies. Trentino is, along with South Tyrol, one of the two provinces which make up the region of Trentino-Alto Adige/Südtirol, which is designated an autonomous region under the Italian Constitution. The province covers an area of around 20,000 km<sup>2</sup>, with a total population of 0.5 million people. This "small" territory have "big" numbers over the EU average, such as: 2.19% of GDP invested in R&D activities (Italy: 1,27; EU27: 2,02); 6,1 Employed in R&D every 1000 inhabitants (Italy: 3,8; EU27: 5,1); 1 University, 12 public Research Centers and 6 Industrial Research Centers (Istat, 2013);

Within this ecosystem, the involved actors are: University of Trento (in particular the ICT Branch), the Bruno Kessler and the Edmund Mach Foundation (public research centers), Telecom and Microsoft among private research centers, the Public Administration of Trentino (PAT), indigenous firms and the citizens.

In this ecosystem, in order to promote social innovation, the results of our analysis show that Trento Rise uses different tools such as Pre-commercial procurement (PCP) and "Trentino as a Lab" (TasLab), it proposes several activities and, at the same time, it coordinates several projects on the territory. This

highlights how TrentoRise is actively involved in all the projects and initiatives within the Trentino Region.

In particular, the main instrument used by TrentoRise in order to foster innovation is the PCP. PCP is a process empowering public authorities to buy the technologically innovative solutions that fit their needs. Public procurers act as first buyers who share with suppliers the benefits and risks of pulling technology from early stage research to pre-commercial products. It focuses on domains where no commercial solutions exist yet on the market. PCP is in essence a mutual learning process for the procurers, users and the suppliers to get firm confirmation both about the functional needs on the demand side and the capabilities and limitations of new technological developments on the supply side when it comes to tackling a concrete public sector problem (European Commission, 2008).

First-buyer involvement in the early phases of industry R&D delivers better products at lower costs. Moreover, PCP dramatically reduces the risks and the cost of failure at deployment stage both for procurers and for suppliers. Putting several suppliers in competition in developing solutions at the pre-commercial stage ensure healthy competition and contributes to ultimately get the best product at a favorable price. PCP can also attract venture capitalists looking for promising opportunities offered by SMEs involved in such projects. In addition, pre-commercial procurement shortens the time-to-market by better aligning product developments with customer needs and it enables to create long lasting growth and jobs and new sectors of industrial leadership through planned innovation of public services.

Another tool that TrentoRise uses to foster social innovation is "Trentino as a Lab" (TasLab), that enable the area in testing solutions before going to market and produce advantages both for company and territory. Users are able to participate in user-experience research activities, as well as participatory design activities. Citizens' participation in the "laboratory" is gamified, in order to ensure long term commitment, community building, and trust among the members of the community. This is also useful for attracting enterprises in co-location centers in order to develop R&D programs and to create synergy with research and education areas but also in discovering co-financing and IPR Sharing.

Moreover, TrentoRise promotes several other activities in society for the growth of the collective consciousness, such as: a) ICT Days: annual event for the sharing and the development of awareness by the population and the major stakeholders of innovation, about the process of social change and its proactive management; b) Territorial Seminars: decentralized intermediate events for the growth of awareness by the population, about the process of social change and its proactive management; c) Social Innovation Laboratories (SIL): work roundtables with the main stakeholder groups for the proactive management of social change; d) TEDx: international event of global significance for raising



awareness of the most innovative ideas developed on a national and international reference topic "quality of life" and the "social innovation".

Finally, three main flagship projects are active now in Trentino thanks to the TrentoRise coordination: Open Data Project in Trentino, Big Data Project and Smart Campus. These projects are done in collaboration with public and private partners to make Trentino an intelligent and competitive territory with high potential and an excellent quality of life.

Regarding the first project, the Autonomous Province of Trento, TrentoRise and other business actors (Informatica Trentina S.p.a., SpazioDati S.r.l.) and research institutions (Università di Trento and Fondazione Bruno Kessler) endorse the "Open Data Project in Trentino". It aims at publishing data withheld by all the department of the Province for generating accountability, transparency and foster economic growth, as expressed in the guidelines for the reuse of public data official document. At the same time, the team focused at the creation of the "Data as a Culture" through educative actions both inside and outside the authorities involved. An example is the "School of Data" organized by Fondazione Bruno Kessler and Open Knowledge Foundation with the purpose of disseminate tools and best practices for the re-use of data.

Regarding the second project, Big Data Project aims at developing a platform for delivering advanced services to a wide range of users and applications. The platform consolidates all the knowledge currently produced in Trentino by public and private bodies with the purpose of promoting services, research and development, enabling a better quality of life to the citizens.

Regarding the third project, Smart Campus aims at empowering citizens of a smart city with a more active role in designing, developing and delivering the services they want and like. Trento becomes a true "smart city" where students, researchers, and institutions interact to each other and where Smart Campus becomes a lab and a community at the same time. The lab builds a social and technical environment for collaborative service design and personalized service delivery. The community is composed of all the students, researchers and staff who use the services and collaborate in their creation.

The above mentioned activities and projects are all in line with the findings of Almirall et al. (2014) in their study of open innovation in an innovative ecosystem and in smart cities.

## **DISCUSSION: OUTLINING THE INNOVATION CATALYST**

The process of innovation requires to be continually fed by new ideas, new knowledge and new projects, also from a sustainable perspective that aims to improve society for the future generations (Chesbrough et al., 2006; Bresciani, 2009; Thrassou et al., 2014). In this context, the presence of an

*innovation catalyst* that attracts each stakeholder, putting them together, leaving them unchanged, and bootstrapping new initiatives is crucial.

The analysis of the case study shows that an *innovation catalyst* must be an agile structure, it should not be afraid of the risk, but it should be guided by the ideas and results-oriented. Another interesting result is the organizational structure and the employee of the catalyst. In fact, TrentoRise is not based on hierarchy, it has a lean and simple structure and it hires qualified personnel (20% of its employees have a PhD) or experienced manager in the key positions of the organization. Moreover, from the interview it clearly emerges that an innovation catalyst should have a strong link with the territory in which it operates, but at the same time it should be open to the world, because the change is global. In short, *innovation catalyst* must act in a *glocal* perspective which is the basis of creation and functioning of ecosystems of successful innovation. Only in this way it will have the flexibility to manage and anticipate the change.

Another fact that clearly emerges from our analysis is that an innovation catalyst should operate mainly, if not exclusively, through public-private partnerships. It should work only for completed projects, always within a guarantee of sustainability of the exploitation of the results once the project is finished.

Finally, it is crucial that the various collaborations must be enabled via incentives. As it makes no sense to impose innovation from the top, the project activities aimed at increasing the probability of generating innovation cannot be imposed. Only those who see in the initiative a chance to return, measured according to its own value chain, will tend to participate. This is also the way to ensure the sustainability of medium to long term, even after the end of the project.

Another interesting result coming from the interviews is that TrentoRise is similar to other organizations in the world such as the Defense Advanced Research Projects Agency (DARPA) in the Silicon Valley and VINNOVA in Sweden. In fact, in the Silicon Valley, DARPA, despite being officially based in Arlington (Virginia), has played a crucial role in the birth and development of the region. Founded in 1958 as a response to the Soviet Sputnik, DARPA is an agency of the Department of Defense in charge of the development of new technologies for military use. The first beneficiaries of the substantial funding provided by the federal government were companies such as Fairchild, and universities like Stanford: the backbone of the Silicon Valley. DARPA has not only acted as lender, but as a real *innovation catalyst*, working alongside the biggest companies such as Intel, and top universities like Berkeley, Caltech, UCLA.

VINNOVA, instead, is the Sweden agency of innovation, aims at strengthening the capacity of innovation, supporting the sustainable growth and benefiting society. VINNOVA invests every year about 2 billion SEK (200 million euro), and it can count on two hundred employees. It mainly

promotes collaboration between businesses, universities, research centers and the public sector, encouraging greater use of research, making long-term investments and creating catalytic meeting places.

In conclusion, the people we interviewed clearly show how other similar innovation catalyst have played a fundamental role in foster innovation in other prestigious ecosystem in the world and they compare the role of these with the role of TrentoRise in the Trentino Region.

However, obviously TrentoRise differs from these larger catalysts mainly because it operates in a smaller ecosystem. Here, the key fact is that every innovation catalyst must be adapted and be functional to the ecosystem in which it operates.

## CONCLUSION

This paper highlights the basis for the successful implementation of social innovation in a ecosystem. In this paper we refer to social innovation and we underline the fundamental role of the *innovation catalyst* in fostering the development of innovation ecosystems. Thus, this paper fits in a literature and research gap because mainstream models of innovation such as the Triple Helix Model and subsequent developments do not provide the innovation catalyst. Highlighting the existence, the role, the activities and the features of this new actor allow us to fill this gap in the literature and, at the same time to align theory with practice.

In order to do that, we analyze the Trentino Region, a centre of excellence in Italy and Europe that in the last years become a virtuous example of innovation ecosystem. The wide range of the stakeholders involved in the ecosystem and their diversity suggest the need of an *innovation catalyst* that activate a permanent process of innovation through close cooperation and synergy between all the actors. In Trentino this role is covered by TrentoRise, an example of *innovation catalyst* that improves the quality of the relationships between the actors, favorites innovation development and protects the entire ecosystem.

Therefore, the analysis we have developed provides answer to our research questions. The Trentino's example shows that an healthy ecosystem may be developed when all the actors' objectives are aligned and when a new actor, the *innovation catalyst*, plays the role of intermediary facilitating interaction and collaboration between the actors and ensuring that every component will maintain its specificity and autonomy.

The main instrument used by TrentoRise in order to foster innovation is the PCP). First results in this territory are positive. Eight PCP tenders already in execution phase, seven PCP tenders launched (some of which have value of more than 4 million euro singularly), 5 EIT ICT Lab projects in execution and 6 Industrial research centers (and additional 9 start up) currently co-located with TrentoRise. But,

through the interviews we have carried on, it clearly emerges that an innovation catalyst is fundamental for each of the actors involved in the ecosystem and this is also demonstrated by the fact that TrentoRise is actively involved in all the projects and initiatives within the Trentino Region.

This organization gives the organizational and financial support, increase the trust in the partners cooperation leading to lower transaction costs and push the innovation creation and sharing across all the members within the ecosystem (citizens included).

Trentino as a Lab (TasLab) and the other activities carried on by Trento Rise on the territory reach the attention of Italian and European governments and citizens showing that in order to foster social innovation in a contemporary society an actor that works as a catalyst/intermediary is fundamental. Also the aforementioned flagship projects allow a small city like Trento to cover the first positions in the Italian Smart City ranking (Smart City Index, 2014).

Positive evidences are therefore linked with the development of the territory. Thus, Trentino has numbers over the EU average such as: 2.19% of GDP invested in R&D activities, 6.1 Employed in R&D every 1000 inhabitants, 1 University, 12 public Research Centers and 6 Industrial Research Centers. It is, also, the region with the lowest unemployment rate in Italy, 5% for the total population, 12.5% for the young people, while the average in the rest of Italy is more than 40 per cent. Furthermore, it is the first Region in Italy for citizens quality of life. This data shows how the region becomes one of the most innovative in Italy and it becomes a node of an important European ICT Network. Moreover, the direct and indirect data showed how an innovation catalyst has a positive role in order to develop innovation within an ecosystem (RQ 1).

Also, the analyzed case allows to outline some key features that *innovation catalyst* should have: TrentoRise is not based on hierarchy, it has a lean and simple structure and it hires qualified personnel (20% of its employees have a PhD) or experienced manager. TrentoRise has a strong connection with local area and all local actors, but at the same time, it is global oriented, attracting firms, venture capital, business experts and qualified researchers. Also, TrentoRise co-operates mainly through public-private partnership with territorial research centres, which are founders with small and big firms operating on territory (or with those that have opened labs within TrentoRise structures) and its purpose is the innovation of local society, generating new forms of innovation obtained by increasing the existing ones. Following this case study, all these features should be held by a successful innovation catalyst (RQ 2).

Summarizing, the main goal of TrentoRise is the contribution in identifying the innovation boundaries and in maintaining the ecosystem in good health, supporting the interaction between the single components. Thus, the district is the place that offers a solid basis for the firms in order to maintain the competitive advantage achieved through innovation in a long time. The District also contributes to

realize positive network externality for small and medium firms (Becchetti et al., 2007), to train and attract big multinational enterprise and to maintain a high level of innovation content in the offering. So, this paper have some contributions both for academic and for policy makers. From the academic point of view, it enriches the existing innovation models and it propose a new actor that play a unique role within the ecosystem fostering social innovation. From the second point of view, a deeper knowledge on this topic allow us to understand how to develop scalability strategies and to replicate the model in other areas helping regional policy makers to develop similar model according to the characteristics of districts. In fact, our case study suggests how an *innovation catalyst* is important and its key role in developing an healthy and functioning ecosystem for innovation.

The major limitation of this work is that the analysis presented has been developed only on one case of *innovation catalyst* and the Trentino ecosystem is smaller than others. Moreover, Trentino is a Special administrative region, where 90% of the taxes remain on the territory and are not redistributed to the national level. However, TrentoRise is the most important example of innovation catalyst in the Italian context so we decided to focus on it as we still are in an initial stage of our research. This offers an avenue for future research. On the one hand the focus of the analysis can be broadened to other countries, even to investigate if country differences are evincible. On the other hand, additional investigation on the topic will allow the definition and the development of a brand new model of Social Innovation, hinging on the role of innovation catalyst.

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## BRAND LOYALTY IN CONSUMER DURABLE GOODS

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### ABSTRACT

The aim of this research is to explore how loyal are consumers when replacing (i.e. how often they repurchase) a durable good and whether brand repurchase relates to replacement trigger, age of a replaced good, market importance of a replaced brand in the moment of replacement, or psychographic profile of a consumer. Data was collected as a part of a larger study on consumer durables and disposal behaviour in an online survey. Overall, results show low loyalty and low or unpredicted influence of observed variables which implies that future research should give more emphasis to study effects of loyalty efforts in the area of consumer durable goods. Results also show that the main replacement trigger is lag in technology. Brand managers of consumer durable should therefore be aware of a very brand switching nature of their consumers and take it into consideration when deciding whether to increase their efforts directed to brand relationship building or redirect it in other more fruitful direction, possibly stronger research and development. Apart from extending research to other product categories, spill over effects between product categories but within a brand should also be taken into consideration in the future studies.

**Keywords:** *brand repurchase, brand switch, loyalty, durable goods, replacement, TV, replacement triggers, failure, technological development*

### INTRODUCTION

It's a proven fact that it costs many times as much to bring in a new customer than it is to retain the existing one (Krishnan and Hari, 2011). Therefore it is the aim of marketers to achieve loyalty by creating brand relationships (Tsiotso, 2013; Huang et al., 2014) and achieving customer satisfaction (Curtis et al., 2011). However, while the importance of loyalty has been heavily studied in the fast moving consumer goods and services, it is much less explored in the field of durable goods (cf. Curtis et al., 2011). On the other hand, according to Che and Seetharaman (2009), it is especially critical to understand and manage brand loyalty in durable goods industries as they display large profit margins but long replacement cycles. While there is a general agreement that satisfaction is the main driver of consumer loyalty, loyalty can be easily disrupted due to marketing activities like price cuts



(Suh and Yi, 2012), and in long replacement cycles with new market entrants (Lam et al., 2010), and technological breakthroughs (Islam and Maede, 2000).

Most previous research on consumer durables loyalty explores relationship between satisfaction and loyalty and certain moderators in this relationship (Homburg and Giering, 2001) or how an introduction of a new brand influences present brands' loyalty (Lam et al., 2010). Research however, skips studying loyalty from the position of replacement point, what leads to it and how that influences repurchase. Furthermore, loyalty is at least a two-dimensional concept, consisting of attitudinal and behavioural component (Jacoby and Kyner, 1973), or a four dimensional concept consisting of: cognitive, affective, conative and action loyalty, which develop hierarchically. Action loyalty is defined as an act of repurchase and as such is often explored through repurchase intentions (Jones and Taylor, 2007, Bloemer and Odekerken-Schröder, 2007), whereas research rarely tracks real behavior.

It is therefore the aim of this research to explore real repurchase behaviour in the moment of replacement to discover how loyal are consumers when replacing (i.e. how often they repurchase) a durable good and whether brand repurchase relates to replacement trigger, age of a replaced good, market importance of a replaced brand in the moment of replacement, or psychographic profile of a consumer. By fulfilling this aim, this study sets itself on a journey to explore how lucrative it is to invest in creating consumer-brand relationship and activities related to achieving consumer loyalty.

## PREVIOUS RESEARCH

### *2.1. Brand repurchase rates of durable goods*

Repurchase of durable goods is often studied for the cars as a product category (e.g. Bayus, 1992; Che and Seetharaman, 2009). Che and Seetharaman (2009) discovered rather high levels of repurchase for three studied car brands ranging from what they refer to as low 35% to high 63% repurchase. However, not all durable goods can expect such high repurchase rates. An important distinction should be made between low and high involvement durable goods. While generally, speaking, low involvement goods are those bought frequently and with a minimum of thought and effort because they do not have great impact on the consumer's lifestyle (Kautish, 2011), low involvement durable goods are bought less frequently, but still lack high perceived personal relevance or importance to the customer (Homburg and Giering, 2001). While, for its public consumption and symbolic utility which contributes to one's identity building (Yoo et al., 2006), cars belong to high involvement durable goods. On the other hand home appliances such as refrigerators, as well as privately used consumer electronics like personal computer and TVs mainly fall into low involvement utilitarian durable goods category. Almost by definition low involvement, utilitarian durable goods imply lower levels of brand

repurchase. For example, Lin et al. (2000) in a study on refrigerator brands in Taiwan discovered repurchase rates ranging from 30%-46%.

## *2.2. Influence of replacement triggers on brand repurchase*

Previous research on brand repurchase vs. brand switching directly explored what motivates consumers to be satisfied and loyal. Krishnan and Hari (2011) discovered 14 components for durable brand satisfaction i.e. repair, overall quality, product compatibility, competitive price, worthiness, reliability, usage experience, after sales service, responsiveness, customer service, loyalty programs, warranty, pre-sales and sales person's behaviour. Obviously, due to bond between satisfaction and loyalty (Curtis et al., 2011) and loyalty and repurchase (Oliver, 1999), these factors inevitably lead to brand repurchase as well. Along these lines, Lin et al. (2000) discovered that brand repurchase or brand switching is to a great extent related to very similar criteria, but ease of use, speed of repairs and quality are the most important.

Unlike previous research which investigated satisfaction with the current units and how it leads to repurchase, in this research it is the idea to explore whether replacement triggers can determine brand repurchase (regardless of satisfaction with the current unit). According to Bayus (1988), there are two main types of replacements triggers for a durable good: forced replacements (replacement of a failed unit) and unforced replacements (discretionary replacements of a working unit). Previous research discovered that consumers replace working units for a variety of reasons, including: product features and technology advancements (Islam and Maede, 2000), marketers' efforts with emphasis on price modification (Lee et al. 2006), trade-in or buyback campaigns (Aras et al., 2011), promotions (Bruce et al., 2005) and new brand (often with better identity fit) entry (Lam et al 2010).

Although, no previous research analysed replacement triggers' influence on repurchase, several assumptions can be drawn. Firstly, product failure as a replacement trigger is most likely to lead to brand switching in case failure occurred prematurely. On the other hand, in case product lifetime exceeded its expectancy; brand switching as well as brand repurchase can happen. That is while, consumer is most likely to be happy with the original brand, over the years market usually changed and it is likely that the old brand left the market. Hence opposite forces influence consumers, making brand repurchase more likely in the case the original brand is still an important market player. Secondly, obsolescence as a replacement trigger is less obvious predictor of brand repurchase vs. brand switching. If observed in combination with a how important a brand of a replaced brand in the moment of replacement still is, some assumptions can be proposed. That is, in case the original brand is an important market player in the moment of replacement, brand repurchase is a likely outcome.

### *2.3. Influence of consumer psychographics and brand age on brand repurchase*

It is also the idea of this research to explore whether consumer psychographic profile can determine brand switching as opposed to brand repurchase. As Lam et al. (2010) discuss, literature on brand switching focuses on functional benefits as the reason for switching ignoring sociopsychological benefits (customer-brand identification and perceived value) which are according to them equally strong in predicting customer loyalty. Kim et al. (2001) suggest that consumer price sensitivity and technology sensitivity. i.e. innovativeness are important factors that influence consumer buying behaviour in a way that those with high innovativeness will more frequently replace a durable good as opposed to those of high price sensitivity who are more likely to wait for a good deal. Put in the context of brand repurchase, it can be assumed that consumer displaying either high price sensitivity or high innovativeness will be more drawn to competitors activities (in the former case technological advancements and in the later promotional sales) and thus less likely to repurchase a brand.

## **METHODS**

### *3.1. Object of the study, procedure and sampling*

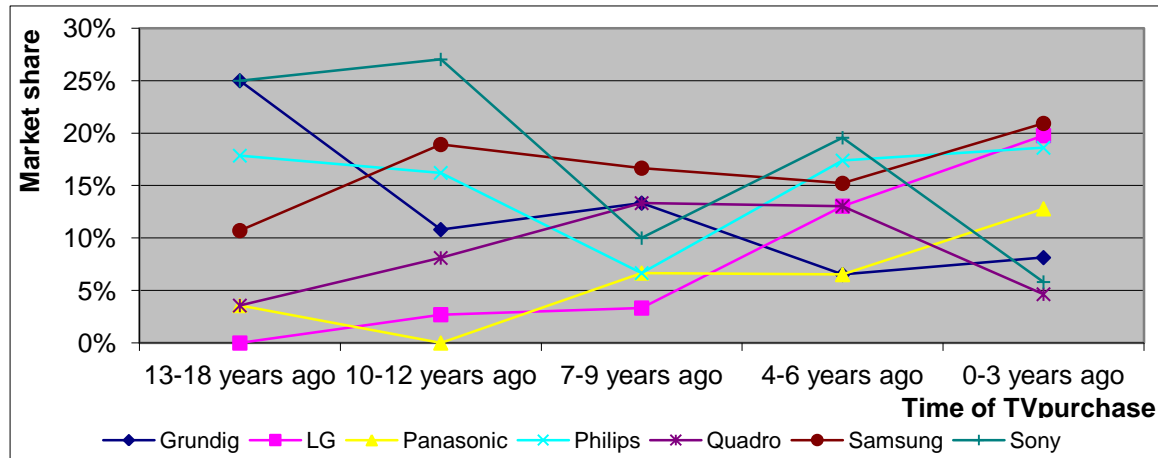
According to Krishnan and Hari (2011) consumer durables can be divided into white goods (e.g. refrigerators), brown goods (e.g. mixers) and consumer electronics (e.g. TVs). In this study TVs are chosen as unit of analysis since they constitute a highly branded product category with a very limited no-name portion of the market. Furthermore, it is a product category which has in the past decade experienced a technology switch (from CRT to LCD technology and from analogue to digital transmission) with radical improvements in functional and design features pushing many consumers to an unforced replacement decision.

Data was collected as a part of a larger study on consumer durables and disposal behaviour (cf. Sinha Khetriwal and First, 2012). Study was conducted in Croatia in 2011 by applying a snowball sampling method. The self-administered questionnaire was designed online at Survey monkey research platform. In total 219 households were included in the study of which 174 replaced a TV and of those only 107 knew brand of the replaced TV and brand of the replacement TV. Therefore, 107 observations could be kept for this analysis.

### *2.4. Measures*

There were six main variables measured in this research. Firstly, brand repurchase was measured with two direct open-ended questions on the brand of the former and the current TV. Secondly, the age of a replaced TV was also measured with an open-ended question. Thirdly, the importance of a replaced brand in the moment of replacement was measured so that all purchases captured in this research

were grouped in three year periods, and for each period, the most important brands were identified. All brands that in a certain period of time held more than 10% of market share were considered still important market players. Graph 1 displays brand distribution over time and as can be seen TV market changed. While 13-18 years ago two dominant brands were Sony and Grundig, they are currently among the least favourite ones. On the other hand, while LG was non-existent 13-18 years ago, it is almost the most frequently bought TV nowadays.



Graph 1. Brand market share within a sample across the years

Thirdly, replacement triggers were measured with a 5 point Likert scale type of question offering ten reasons for replacement of a TV previously mentioned in literature: product failure, inferiorities due to technological developments (functional and aesthetical inferiority, dated CRT technology, incompatibility with gadgets like DVD and game consoles, and incompatibility with digital signal and HD broadcast), two types of sales promotions (old for new and cheaper prices), and other reasons (intention to give away a current TV, move to a new house, and unintended replacement of a TV caused by an awarded TV). The results were coded so that one main reason per consumer was identified. In most cases only one reason was given the highest importance in Likert scale, whereas for few cases in which more reasons were given the highest importance, the reason with higher weight was assigned. The highest weight was given to failure, followed by technological inferiority, sales promotions, and finally other reasons.

Fourthly, psychographic variables, i.e. price sensitivity and innovativeness were operationalised using established 5-point Likert scales by Goldsmith et al. (2005) adapted to the object of the study as depicted in table 1. Although Cronbach alpha of Price sensitivity is somewhat below recommended value of .7 (Nunnally 1978), this construct is still taken for further analysis but interpreted with caution.

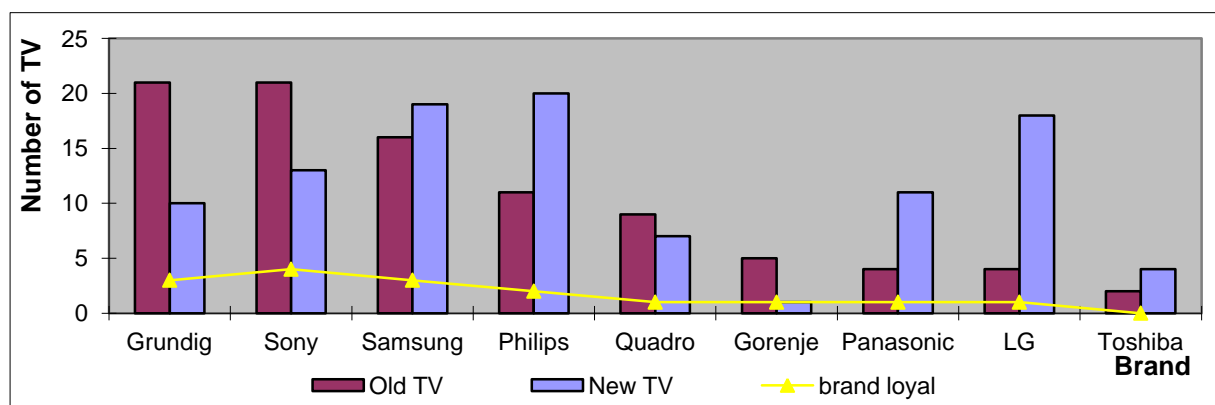
Variables	Items	Cronbach alpha
Price Sensitivity	1. We are less willing to replace a TV if we think that prices will come down. 2. We don't mind paying more to try out new technology. 3. Really good TV is worth paying a lot of money for.	.610
Innovativeness	1. We are among the last in our circle of friends to replace our old TV 2. Compared to our friends, we do little shopping for new electronic gadgets. 3. We know more about new electronic gadgets before others.	.727

Table 1. Construct operationalization

## RESULTS

### 4.1. Brand repurchase rates

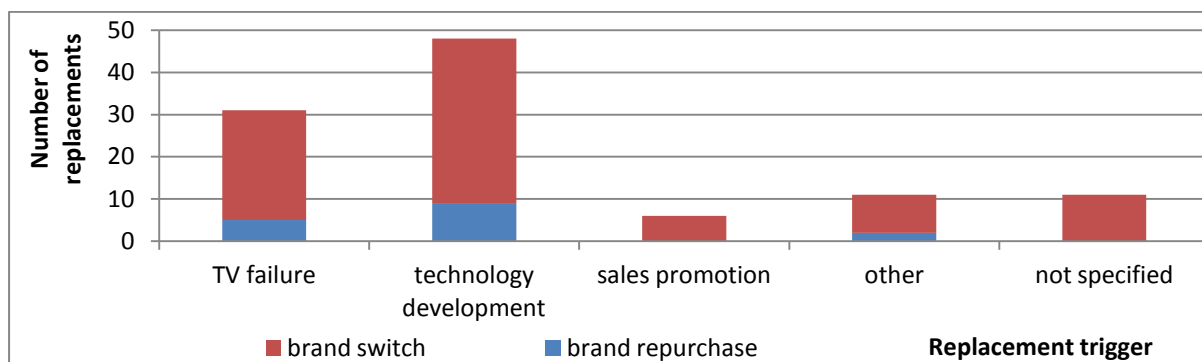
Graph 2 presents brand frequency purchase for old and new TVs as well as brand repurchase. Brands that were mentioned at least 4 times either as a new TV or as an old TV are presented in the graph. Among the most mentioned brands (11 - 21 mentions) for old TVs are Grundig, Sony, Samsung and Philips. Their repurchase rates vary from 14% to 19%. For all other brands number are too small to calculate stable repurchase statistics, but the graph shows they are small as well. Interestingly, even though Philips and Samsung appear in large enough numbers among old and new TVs and even though they were brands with a respectful market share over the studied years (see graph 1), results show that repurchase of those brands is as low as of Grundig and Sony, brands whose market presence drastically fell. These results further strengthen the conclusion that loyalty for TVs is rather small even in the case of long-lasting, market share wise important brands.



Graph 2. Brand repurchase across brands

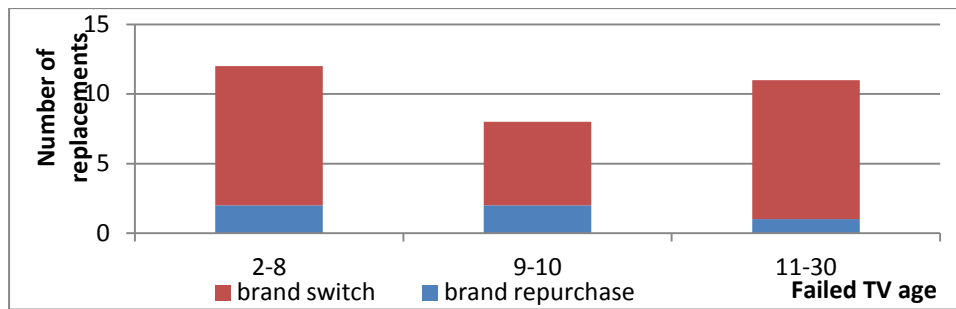
### 4.2. Replacement triggers as potential predictors of brand repurchase

There were three main reasons for TV replacement: product failure, developments in technology landscape and sales promotions. The most common replacement trigger was technological developments, followed by a TV failure as graph 3 demonstrates. The next two columns in the graph in terms of importance represent replacements due to unexplained reasons, and replacements triggered by other reasons (giving away a current TV, move to a new house, awarded TV). Replacement was triggered by sales promotion for only a very small percentage of the sample. This might be explained in light of durable goods being purchased in a well-planned and non-impulsive manner. Although TVs replaced for that reason all fall into brand switch category, Likelihood ratio (alternative to  $\chi^2$  test used when some tested groups contain less than 5 observations) statistically confirms at  $p=.19$  level there are no significant differences in terms of brand repurchase related to replacement triggers.



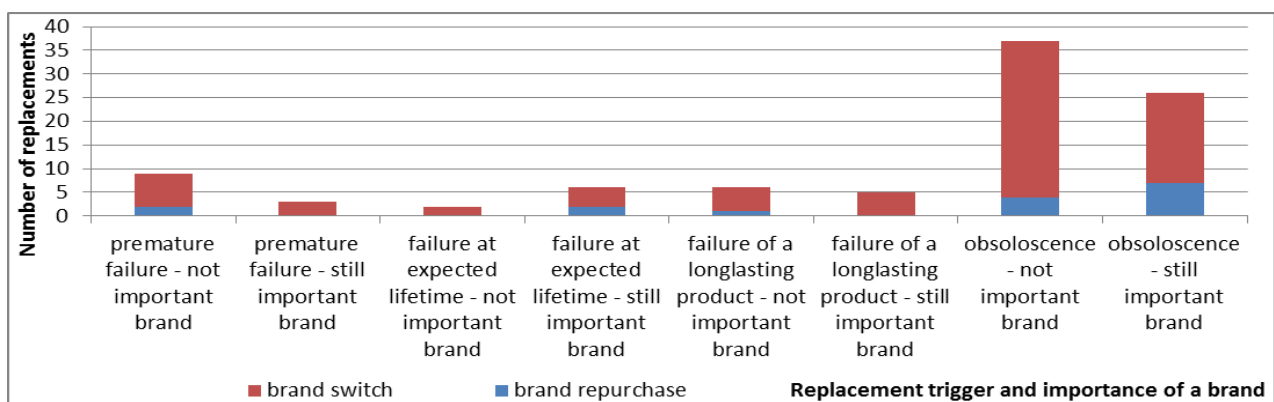
Graph 3. Brand replacement and replacement triggers

To further test the assumptions previously presented in relation to brand triggers, moderating variables were introduced into the analysis. Failure as a replacement reason was combined with the age of a TV, so that three situations were obtained: replacements of prematurely failed TVs (2-8 years old TVs), TVs failed at the expected time of replacement (9-10 years old TVs) and long-lasting TVs (more than 10 years old TVs). Such cut-off points were defined since data show that TVs are replaced on average when they reach 9.6 years of age ( $sd=5.1$ ). Likelihood ratio at  $p=.64$  level also confirms no significant differences in terms of brand repurchase related to premature TV failure as can be seen in graph 4. An additional analysis related to TV age has been conducted with all replaced units to check whether there are differences in terms of how old was a replaced TV at the point of replacement and whether that influenced brand repurchase. Age of TV was divided to five groups (2-4, 5-8, 9-10, 11-17 and 20-30). Likelihood ratio at  $p=.52$  level confirms no significant differences in terms of brand repurchase related to age of a replaced TV.



Graph 4. Brand repurchase and premature TV failure

Unforced replacements (obsolescence due to sales promotions, technological developments or other reasons) were combined with whether at the time of replacement the brand of their original TV was one of the important market players (that is whether it was bought by more than 10% of all the respondents participating in the survey who replaced a TV in the same period of time (see graph 1)). Likelihood ratio confirms significant difference in that respect (however, only at  $p=.10$  level), so that repurchase occurs in 26% of replacement if the brand is still dominant brand whereas it occurs in only 10% of time if the brand is not an important brand any more. The same analysis has also been conducted for cases of TV failure. Although there are too few cases to perform statistically sound analysis and draw firm conclusions, results indicate that the predicted behaviour does not occur. That is, those who should be the least likely to repurchase a brand (those whose TVs prematurely failed and were of a marketwise non-important brand), repurchased it more often than all other consumers whose TVs failed. Graph 5 shows results of failed and obsolete TV replacements related to whether repurchase occurred in case of brand being still an important market player.

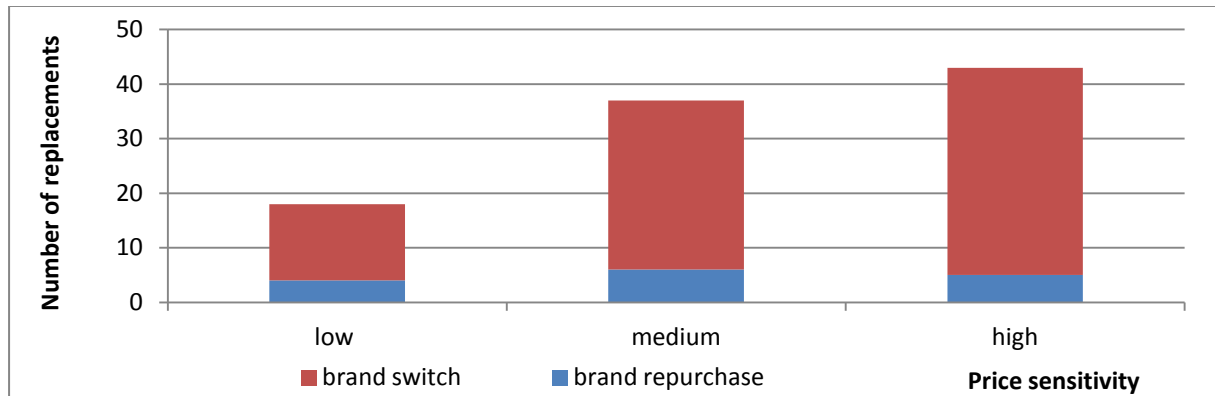


Graph 5. Brand repurchase, replacement triggers, market importance of replaced brand and time of TV failure

#### 4.3. Psychographic profile as potential predictor of brand repurchase

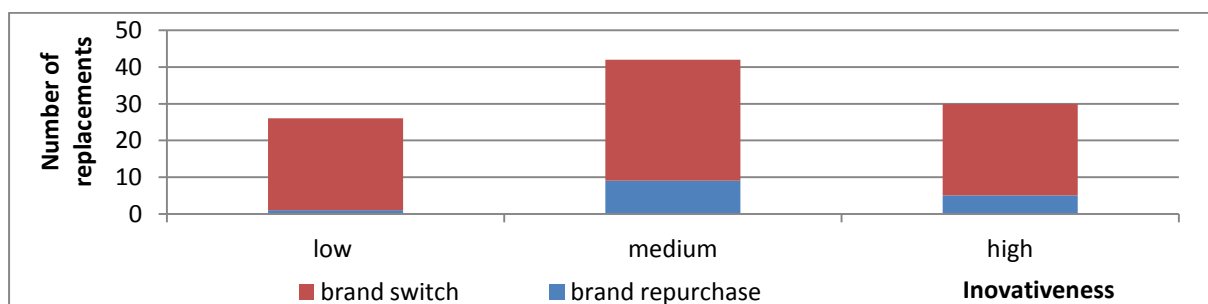
Final analysis that was conducted was to check whether consumer psychographic profiles including price sensitivity and innovativeness influence brand repurchase. A consumer displays either one of

the sensitivities should be more drawn to market changes (technological advancement or promotional sales) and thus less likely to stick with a relationship developed with a brand. Although both of these sensitivities were measured on a five point Likert scale, due to uniformity of results presentation, 3 levels of sensitivity were calculated: low (1-2.33 on a Likert scale), medium (2.66-3.33), and high (3.66-5).



Graph 5. Brand repurchase and price sensitivity

Although graph 6 indicates higher brand loyalty at low sensitivity levels, Likelihood ratio at  $p=.57$  level proves there are no statistically significant differences in terms of brand repurchase related to consumer price sensitivity, meaning that price sensitive and price insensitive consumers display similar levels of brand repurchase. On the other hand, Likelihood ratio for innovativeness and brand repurchase at  $p=.09$  confirms there is a significant differences in terms of brand repurchase related to consumer innovativeness so that those with low innovativeness disclose low brand repurchase of only 4%, whereas those with medium and high innovativeness disclose repurchase of 21% and 16% respectively (graph 7).



Graph 7. Brand repurchase and innovativeness



## DISCUSSION AND CONCLUSION

It was the aim of this research to discover how loyal consumers are to their durable good brands and whether durable good replacement triggers, as well as age of a durable good, market importance of a replaced brand in the moment of replacement and consumer psychographic profile influence brand repurchase. Design of the study was set so that actual durable good replacement was examined. Although repurchase is not a condition enough to claim loyalty (Jacoby and Kyner 1973), real loyalty without repurchase does not exist. Therefore, this research set itself to explore real behavioural data on repurchase rather than cognitive assumptions of respondents related to various types of loyalty.

Overall, results showed a very weak repurchase rates ranging from 14%-19% across the most important TV brands. Those repurchase rates can be labelled very small and imply low loyalty for the studied durable good. A similar analysis conducted by Lin et al. (2000) on refrigerator brands (also a low involvement, utilitarian durable good) discovered repurchase rates much higher ranging from 30%-46%, although declared as only moderate by the authors. Low repurchase rates in the present study are unexpected and shed new light on importance of loyalty in durable goods.

Examining whether repurchase, although small, occurs in certain situations more often than in others showed only some weak differences. No relationship was found between different replacement triggers. Since this research was pioneering in examining replacement triggers as predictor of repurchase, results cannot be compared to previous research. Results were further refined so that two moderators were introduced. Firstly, moderating TV failure as replacement trigger with failed TV age again revealed no significant relationship. It was expected that premature failure would result in brand switch, but even in those instances there was a small portion of consumers (as in the other groups) who were loyal to a “failing” brand. Although, such results do not directly examine relationship between satisfaction and loyalty, they should be taken into account in that sense as well. If a TV failed prematurely, it probably implies certain level of customer dissatisfaction; however, unlike a lot of previous research (Curtis et al., 2011; Homburg and Giering, 2001), this research revealed no relationship of dissatisfaction and loyalty. Secondly, moderating market importance of a brand of a replaced TV in the moment of replacement for the non-failing TVs revealed a weakly significant relationship, so that important brands were more often repurchased than non-important brands. Such a relationship was not found among TVs that failed. These results imply that if no disappointment happened with the previous TV brand, it will be more likely repurchase only if it plays a major role in the current market, implying that technological advancements play more important role than the brand itself.

Furthermore, no relationship was found between TV age and brand repurchase results are opposite from those by Bayus (1992) whose data showed mild positive relationship in all studied product

categories including TVs in a way that owners of older durable goods tend to be more brand loyal. The discrepancy between present results and those by Bayus might be ascribed by consumer behaviour shift over the past 20 years. That is, consumers used to value durable goods that endure, whereas today value shifts towards those goods that impress with ever new cutting edge technological solutions. Furthermore, with a more turbulent market, brand preference shifts easier with many new market entrants (Lam et al., 2010).

Finally, while consumer price sensitivity did not influence repurchase, innovativeness seems to be a weak predictor of repurchase, so that moderately and highly innovative consumers tend to repurchase brands more often than non-innovative consumers. Previous research by Kim et al. (2001) only studied influence of price sensitivity and innovativeness on replacement frequency. However, reasoning presented in this paper led to an assumption that in the context of brand repurchase, price sensitive and innovative consumers display higher brand switching behaviour. Therefore, again, previous results do not give support to the results of the present study neither for price sensitivity nor for innovativeness.

Overall low loyalty and low or unpredicted influence of observed variables imply that future research should give more emphasis to study effects of loyalty efforts in the area of consumer durable goods. Brand managers of consumer durable goods should be aware of a very brand switching nature of their consumers and take it into consideration when deciding whether to increase their efforts directed to brand relationship building (as current efforts do not yield satisfactory results) or redirect it in another more fruitful direction, possibly stronger research and development (since technological development is the most common replacement trigger). These results; however, do not neglect importance of branding. Although technological developments seem to be the most lucrative direction of investments, global brands are dominantly purchased. This indicates that for a durable good producer to even enter the consideration set of a consumer, its brand should be developed. What these results put a question mark on for further studies, is whether investing in brand relationships when it comes to consumer durables pays off.

This research has several limitations. Firstly, as an exploratory study, this research is conducted on a rather small amount of respondents; therefore, the results should be taken as initial indications for the future studies. Research further, looked at only the replacement of TVs. Apart from extending research to other product categories, it is also important to take into consideration that durable goods brands normally encompass more than one product category and therefore such spill over effects between product categories but within a brand should also be taken into consideration in the future studies.

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## DEFINITION OF A MAP OF INDICATORS ORIENTED TO ANALYSIS, IMPLEMENTATION, MONITORING AND CONTROL OF CORPORATE SOCIAL RESPONSIBILITY LEVEL IN A REGIONAL CONTEXT

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### ABSTRACT

Corporate Social Responsibility (CSR) is a current topic in strategic management of organizations. Companies know that working in a socially responsible way could provide many benefits. This way, some years ago, organizations are introducing practices on economic, social and environmental dimensions making evidence of the concern on these topics. A difficult question is to know the level of awareness on CSR by the groups of interests. It is not possible to measure the exact point of CSR in a company but it is possible to define the perceptions on CSR from people involved in the managerial activity. In this sense, the paper starts with a measurement scale on CSR, obtained from a high sample of Extremadura managers. The paper is developed in a regional context and the research has provided interesting results for this context and their companies. We can know how actions could be worked in order to be socially responsible. At this moment, we have to note the importance of disclosure of information; companies must disclosure what they are doing, how they are working, in order to help to another companies. In this sense, following the standard of *Global Reporting Initiative*, we have defined a map of indicators for each component of the measurement scale, in order to help the analysis, implementation, monitoring and control of CSR in this context.

**Keywords:** *Corporate Social Responsibility, measurement scale, regional context, indicators, Global Reporting Initiative.*

### INTRODUCTION

We base this study on the strategy of Corporate Social Responsibility (CSR) that a few years ago come rushing business. At first, large ones, in which the implementation and monitoring of CSR is easier and then small and medium-sized (SMEs), which have ventured on this path towards sustainability. On the support of Green Paper from the European Commission (2001), Promoting a European Framework for Corporate Social Responsibility, it is considered "voluntary integration by companies

of social and environmental concerns in their operations trade and their relationships with their partners". Recently, this definition has been renewed pointing "the responsibility of enterprises for their impact on society" and making explicit reference to the need for collaboration with stakeholders to "integrate social, environmental and ethical concerns, respect for human rights and consumer concerns into their business operations and core strategy" (European Commission, 2011:7).

The academic world has been very prolific in this regard, offering numerous contributions that have consolidated a very solid framework of study. Thus, the contribution of Carroll (1979) suggests that CSR encompasses the economic, legal, ethical and philanthropic expectations that society has of organizations in general. Later, Carroll and Bucholtz (2003) pointed out that businesses have to get a profit, obey the law, be ethical and behave as good members of society. Yelkikalan and Köse (2012) point out that organizations design their activities to meet the needs of the community in which they operate and while they are developing these activities use the resources of the social structure in which they are located.

We cannot say that the economic and financial crisis that is surrounding us has been a reason to abandon the treatment and study of CSR, rather the contrary, fundamentals to overcome crisis can be found on CSR. Thus, we find that the classical literature on CSR has been considerably extended with the prospect of this concept in the context of economic and financial crisis being experienced in recent years (King, 2002; Muller and Kräussl, 2011, Perez-Ruiz and Rodriguez del Bosque, 2012; Yelkikalan and Köse, 2012; Miras, 2013). In this sense, Barton (2001) suggested that managers of organizations must be able to recognize, anticipate, manage, and formally prepare for a crisis. In the same way, King (2002) indicated that when a crisis occurs, the organization must have formal guidelines and procedures to communicate, both internally and externally.

By the European Union have also made contributions in this line. So, very recently, Baldassarre Report (European Parliament, 2013) on Social Responsibility of Businesses: responsible and transparent business behavior and sustainable growth, stresses that the current global economic crisis was originated in fundamental errors (transparency, accountability, responsibility) as well as a short-term view. In response, the EU is strongly in favor of CSR and sees that it, if applied correctly, and if it is practiced for all businesses and not just large, can contribute greatly to restore lost confidence needed to sustainable economic recovery.

Given the current situation, companies have been forced to develop different identities as corporate citizens and CSR has become a key issue (Werther and Chandler, 2005). The organization that can respond to the market and the needs and concerns of society will incorporate CSR into their business strategy in various ways (McWilliams *et al.*, 2006): as a way to gain legitimacy (Werther and Chandler,

2005), for a better risk management (Husted, 2005; Orlitzky and Benjamin, 2001; Story and Price, 2006) and as a way to gain market share (Werther and Chandler, 2005).

Between the possible ways to gain market share, we have to mention the innovation capacity held in companies, as well as finding a good performance, which certainly will lead to a greater competitive success for companies. In this sense, Howitt Report (European Parliament, 2013) notes that, especially in times of crisis, companies operating under the principles of CSR should help to develop innovative capabilities of its region through the implementation of innovative technological solutions and respectful with the environment, in addition to carrying out new investments and its modernization. It also emphasizes that the integration of environmental issues such as biodiversity, climate change, resource efficiency and environmental health for business operations provides potential to promote a sustainable recovery, that is to say, it encourages and highlights the CSR and innovation relationship. Similarly, related to business performance and competitive success of enterprises, especially SMEs, the Howitt Report (European Parliament, 2013) states that CSR actions not only benefit society as a whole, but help companies to compete and be economically viable in the long term. The report warns that smaller companies can be sustainable even with minimal management and without increasing their costs due to the fact that CSR can be taken in the way they operate and compete in markets on the basis of an informal approach and even intuitive. It also notes the positive link between companies implementing CSR and the achievement of better results when they come out of the crisis by supporting the concept of "responsible competitiveness".

Based on the above arguments we undertake the development of a regional research project entitled "Diagnosis of Social Responsibility as a factor of innovation and development in Extremadura" from 2007 to 2010. In this project, developed in a moment of full crisis, we made an approach to a large group of Extremadura businessmen, from which some really good results were obtained (Sánchez-Hernández and Gallardo -Vázquez, 2012; Sánchez- Hernández et al., 2012; Gallardo-Vázquez et al., 2013; Gallardo-Vázquez and Sánchez- Hernández, 2012, 2014a, b).

From measurement scales finally validated, i.e., those composed of items that have supported the perceptions from managers, and based on the G3 and G4 Guidelines from the Global Reporting Initiative, as well as in the document entitled Standards Information on Corporate Social Responsibility (SAABA, 2010), the aim of this paper focuses on designing a map of CSR indicators that is practical to the business and present a potential real involvement in the business network.

The paper is divided into the following sections. First, after this introduction, CSR is addressed in the regional context of Extremadura and we offer the measurement and validated scale of CSR. The following section provides a map of indicators oriented to the analysis, implementation, monitoring

and control of the level of CSR in Extremadura companies. Last section contains the conclusions of the paper.

## **CORPORATE SOCIAL RESPONSIBILITY IN THE CONTEXT OF EXTREMADURA**

As discussed, previous research has enabled us to diagnose the state of CSR in a regional context, watching who the exercise of this business strategy determines a source of sustainable competitive advantage, a greater competitive success for businesses, more innovation, and as improved business performance. It is no coincidence that those companies that have begun the journey of CSR obtain this number of benefits. The literature has long been pointing out such advantages for companies that decide to undertake socially responsible actions.

Current studies indicate numerous benefits derived from the adoption of socially responsible actions, defined in all areas of the organizations (Stevens et al., 2005), human resources (Glavas and Piderit, 2009), financial (Brammer and Millington, 2008), commercial (Luo and Bhattacharya, 2006), and so on. Between these benefits, we can mention, in particular, the obtaining of competitive advantages (Greening and Turban, 2000), i.e., the theory says that those companies that perform socially responsible actions are the most competitive, which shows the growing importance to the economy and organizations in general (Chang, 2011; Boulouta and Pitelis, 2013). If this is so, it is necessary to explain the causality between this new variable of business management, CSR, and the classic goal in a company to be competitive.

While the theory was given at this, three or four years ago many case studies were not on literature, that clearly put out the connection between what is indicated in academia scope and what is deducted from the practice area. In this line, the authors were able to infer, with a high degree of reliability, how important is the exercise of CSR for companies in Extremadura (Gallardo-Vázquez and Sánchez-Hernández, 2014a, b; Sánchez-Hernández and Gallardo-Vázquez, 2012).

We highlight the large number of small and medium enterprises (SMEs) in the world, which we have a great strategic value for each country and region, determining a significant part of the economic growth (Preuss and Perschke, 2010). These companies are the largest contributor to the economy of the regions, are the major contributors, but are also those that have more difficult to undertake CSR, being perhaps that should receive the best support and advice to continue an optimum performance.

Measurement validated scale of Corporate Social Responsibility for a regional context

In order to achieve a measurement validated scale explanatory of perceptions of Extremadura entrepreneurs, and based on previous work we carried out the definition of own scale, tailored to the characteristics of the context of study. So, we started from the contributions of Turker (2009), Lu et al.



(2012) and Pérez and Rodríguez del Bosque (2013), from which we defined the own which were later subjected to the corresponding study of validity and reliability were defined.

The result, of great value in the research field, is the definition of a validated measurement scale for the context of study and which is currently undergoing treatment in other regional contexts belonging to countries other than Spain, so able to draw conclusions and make comparisons to contribute to the literature. With this measurement scale we completed an important process, putting us in line with Abbott and Monsen (1979), Quazi and O'Brien (2000), Maignan and Ferrell (2000), Turker (2009) and Clarkson et al. (2008) who had already contributed to the CSR literature with different scales.

Validation of the measurement scale of CSR in Extremadura has been obtained from a debugging process of indicators based on the PLS methodology, with the conclusion of a set of defined items considered to measure the constituent constructs of CSR (Table 1).

Table 1: Scale validated for orientation to CSR

MEASUREMENT VALIDATED SCALE FOR THE ORIENTATITION TO CORPORATE SOCIAL RESPONSIBILITY IN EXTREMADURA
<p><b>SOCIAL DIMENSIÓN</b></p> <p>S.3. We are aware of the employees' quality of life</p> <p>S.5. Employees compensation is related to their skills and their results</p> <p>S.7. We are committed to job creation (fellowships, creation of job opportunities in the firm, ...)</p> <p>S.8. We foster our employees' training and development</p> <p>S.9. We have human resource policies aimed at facilitating the conciliation of employees' professional and personal lives</p> <p>S.10. Employees' initiatives are taken seriously into account in management decisions</p> <p>S.11. Equal opportunities exist for all employees</p> <p>S.14. We have dynamic mechanisms of dialogue with employees</p> <p>S.15. We are aware of the importance of pension plans for employees</p> <p><b>ECONOMIC DIMENSIÓN</b></p> <p>E.16. We take particular concern to offer high quality products and/or services to our customers</p> <p>E.17. Our products and/or services satisfy national and international quality standards</p> <p>E.18. We are characterized as having the best quality-to-price ratio</p> <p>E.20. We provide our customers with accurate and complete information about our products and/or services</p> <p>E.21. Respect for consumer rights is a management priority</p> <p><b>ENVIRONMENTAL DIMENSIÓN</b></p> <p>M.27. We are able to minimize our environmental impact</p>

- M.28.** We use consumables, goods to process, and/or processed goods of low environmental impact
- M.29.** We take energy savings into account in order to improve our levels of efficiency
- M.30.** We attach high value to the introduction of alternative sources of energy
- M.32.** We are aware of the relevance of firms' planning their investments to reduce the environmental impact that they generate
- M.33.** We are in favour of reductions in gas emissions and in the production of wastes, and in favour of recycling materials
- M.34.** We have a positive predisposition to the use, purchase, or production of environmentally friendly goods
- M.35.** We value the use of recyclable containers and packaging

### **Map of indicators oriented to analysis, implementation, monitoring and control of CSR level in Extremaduran companies**

Once measurement scale for CSR was validated, we believe it is necessary to identify some indicators for each one of the scale items to collect possible socially responsible actions to be undertaken by companies. As we have already mentioned, for the development of this part of the paper we have relied on the G3 and G4 (Guidelines of the Global Reporting Initiative, 2006, 2013) as well as in the document entitled Standards Information on Corporate Social Responsibility (SAABA, 2010). From both sources we have defined the indicators at this time are linking CSR orientation with competitive success in the Extremaduran business network.

This selection of items, which has been motive of an empirical analysis in the previous sections, must be interpreted correctly. Items that have been validated report on which aspects of CSR are correlated with competitive success in Extremadura companies currently without prejudice that may be enhanced other aspects in coming years and come to join the causal effect observed in the early to project completion. That is to say, we have carried out a research marked by the situation which should be completed by later studies that analyze the same reality to achieve structural information of CSR of Extremadura company.

#### **SOCIAL INDICATORS**

<b>EMPLOYEES' QUALITY OF LIFE</b>			
<b>INDICATOR</b>	<b>DEFINICIÓN</b>	<b>CÁLCULATION</b>	<b>REFERENCE IN G3 (GRI)</b>
<b>Value of contracts</b>	Permanent employees	Percentage of permanent employees to total (Number of employees with permanent contracts in force and	LA1

		full time/ /Number of employees) x 100	
<b>Representation of work health and safety committees</b>	Employees who are represented to help monitor and advise on health and safety at work	Percentage of total workforce represented	LA6
<b>Absenteeism</b>	Days lost by unjustifiable causes	(Number of lost days due to absenteeism during the period/ Number of days worked by all employees during the same period) x 200.000	LA7
<b>Employee Turnover</b>	Employees who leave the organization (layoffs, voluntary redundancies)	Percentage de rotation (Number of employees who leave their jobs in the year/Total employees at the beginning of year) x 100	LA2
<b>Seniority</b>	Year tenure of employees in the company	Sum of all years spent by all employees / Total Number employees	
<b>Employees covered by collective agreement</b>	Employees who fall under each type of agreement	Percentage of employees covered by collective bargaining agreements	LA4
<b>Social benefits for provided to full-time employees</b>	Social aspects involving some benefit for employees	Amount of benefits	LA3
<b>Accident and illness at work</b>	Days lost due to occupational accidents and diseases	(Number of days lost/Total hours worked) x 200.000 (The factor 200,000 is the result of 50 work weeks of 40 hours per 100 employees)	LA7
<b>COMPENSATION – COMPETENCE RATIO AND PERFORMANCE</b>			
<b>Variable remuneration</b>	Existence and importance of pay linked to skills and performance of each employee	(Total variable remuneration for the period / Total remuneration for the period) x 100	
<b>People with variable</b>	Volume of employees	(Employees with variable	

<b>remuneration in the company</b>	with variable remuneration	remuneration / media template in the period) x 100	
<b>CREATION OF EMPLOYEEMENT</b>			
<b>Employees</b>	Increase in number of employees	(Number of employees with contract in force at end of year – Number of employees existing contract at the beginning of the period) / Number of employees with contract in force at beginning of year	LA2
<b>Work in practice or creation of scholarship</b>	Creating jobs or employment practices scholarships	Number of people in the exercise	
<b>TRAINING AND PROFESSIONAL DEVELOPMENT</b>			
<b>Education and training in prevention and control of risks</b>	Defined programs for education, training, counseling, prevention and control potential risks to workers	Number of programs dedicated to this purpose	LA8
<b>Training of employees</b>	Training received by employees	Number of hours of training received during the year / Number of employees with current contract	LA10 HR3
<b>Expenditure on training per employee broken down by employee category</b>	Amount in training and staff development per employee	Total amount of annual expenditure on training and development courses / Number of employees with current contract	HR3
<b>Effort in training and development</b>	Amount in training and staff development	Total amount of annual expenditure on training and development courses / Annual turnover	
<b>Management skills to promote employability</b>	Training received continuous development and growth of certain management skills	Number of hours of training received in such skills programs / number of employees who receive them	LA11
<b>CONCILIACIÓN</b>			
<b>Flexible labor policies</b>	Initiatives and projects	Number of proposed initiatives	

	promoting labor flexibility	throughout the year	
<b>Family conciliation</b>	Access to family reconciliation measures	Number of employees accessing reconciliation measures / Total number of employees	
<b>PARTICIPACIÓN</b>			
<b>Involvement in the management</b>	Number of employees involved and participatory	Employees with active participation on committees, commissions or improvement groups / total number of employees	
<b>Participation in meetings</b>	Percentage of employees who meet the commitment of attending meetings	(Number of employees attending meetings / Number of employees summoned to meetings) x 100	
<b>Suggestions submitted</b>	Percentage of employees who raise suggestions outside formal channels of participation	(Number of employees who have suggestions / media template period) x 100	
<b>EQUAL OPPORTUNITIES</b>			
<b>Gender distribution in the template</b>	Women in the workforce	Percentage of women related to total employees (Number of women/Number of employees) x 100	LA2, LA13
<b>Gender distribution in the Management</b>	Female presence in Management	Number of women in the Management / Total number of members in the Management	
<b>Equal opportunities</b>	Ratio of base salaries of men and women by employee category	Percentage of women salaries related to men (Base salaries of women/Base salaries of men) by category x 100	LA14
<b>Non-discrimination</b>	Incidents of discrimination and actions taken	Total number of incidents of discrimination and actions taken	HR4
<b>INTERNAL COMMUNICATION</b>			
<b>Circular Issued</b>	Volume of written information issued	Number of circulars issued periodically by traditional or	

		electronic means	
<b>Meetings</b>	Volume of meetings	Number of meetings celebrated in the period	

## ECONOMIC INDICATORS

QUALITY OF PRODUCTS AND / OR SERVICES			
<b>Customer satisfaction</b>	Practices of customer loyalty including the results of satisfaction surveys	Number of practices for customer satisfaction and loyalty	PR5
COMPLIANCE WITH NATIONAL AND INTERNATIONAL QUALITY STANDARDS			
<b>Effort to meet quality standards</b>	Initiatives to meet quality standards	Number of programs or processes for quality certification	
<b>Quality Standard</b>	Compliance with quality standards	Number of quality standards with which the company complies	
PRICE LEVELS IN RELATION TO QUALITY OFFERED			
<b>Quality-Price Ratio</b>	Initiatives to reduce prices without lowering quality standards	Number of initiatives underway to reduce prices while maintaining quality to keep prices or increasing the quality	
COMPLETE INFORMATION ABOUT PRODUCT AND / OR SERVICES			
<b>Labelling of products and services</b>	Information about products and services that are required by existing procedures	Number of products and services that meet the regulations on labeling / Number of products and services subjected to regulation on labeling	PR3
<b>Marketing communications</b>	Incidents of non-compliance with regulations concerning marketing communications, including advertising, promotion and sponsorship	Total number of incidents of non-compliance with regulations regarding communication	PR7
RESPECT FOR CONSUMERS RIGHTS			
<b>Non-compliance with</b>	Incidents of non-	Number of incidents derived of	PR2

<b>regulations concerning customer</b>	compliance with regulations concerning any aspect of customer	non-compliance with legal regulations resulting in a fine, penalty or reprimand	
<b>Anti-competitive behavior</b>	Total number of actions for monopoly practices and anti-competitive and results	Total number of actions	S07
<b>Standards compliance</b>	Monetary value of significant fines and penalties and total number of non-monetary sanctions for noncompliance with laws and regulations	<ul style="list-style-type: none"> <li>- Amount of sanctions</li> <li>- Number of non-monetary sanctions</li> </ul>	S08

## ENVIRONMENTAL INDICATORS

MINIMIZE ENVIRONMENTAL IMPACT			
<b>Improvement initiatives of environmental impacts</b>	Initiatives to improve the environmental impacts of products and services, and extent of impact mitigation	Number of initiatives	EN26
<b>Environmental impact of transporting people, goods and products</b>	Significant environmental impacts of transporting products and other goods and materials used for the organization's activities, as well as the transport of personnel	Amount environmental impacts produced	EN29
<b>Emission of substances destroying the ozone layer, by weight</b>	Total Emissions of substances that can destroy the ozone layer	Sum of emissions of substances that destroy the ozone layer in tons of CO2 equivalent	EN19
USE OF PROCUREMENT OF LOW ENVIRONMENTAL IMPACT			
<b>Materials used</b>	Materials used by weight or volume	Amount of different types of materials used	EN1

<b>Reuse of waste</b>	Percentage of materials used that are recycled input materials	$\frac{\text{Amount of materials recycled}}{\text{Amount of used materials}} \times 100$	EN2
<b>ENERGY SAVING</b>			
<b>Power consumption</b>	Direct energy consumption expressed in gigajoules (GJ)	GJ of energy consumed	EN3
<b>Energy saving</b>	Energy saved due to conservation and efficiency improvements	Amount of energy savings	EN5
<b>Initiatives in energy consumption</b>	Initiatives to reduce energy consumption and reductions achieved through these initiatives	Number of initiatives	EN6
<b>INTRODUCTION OF ALTERNATIVE ENERGY SOURCES</b>			
<b>Alternative energy</b>	Use of alternative energy	$\frac{\text{Provision of alternative energy}}{\text{Total energy supply}} \times 100$	
<b>Efforts to introduce alternative energy</b>	Actions and projects involving the introduction of some alternative energy source	Number of initiatives underway to introduce alternative energy	
<b>INVESTMENT TO ENVIRONMENTAL IMPROVEMENT</b>			
<b>Environmental costs and investments</b>	Breakdown by type of total environmental protection expenditures and investments	Percentage of environmental expenditures and investments to total $\frac{\text{Amount of environmental expenditures and investments}}{\text{Amount of expenditures and total investment}} \times 100$	EN30
<b>GAS EMISSIONS REDUCTION, RECYCLING AND WASTE MATERIALS</b>			
<b>Generation of waste</b>	Waste generated, hazardous and non-hazardous	Tons of waste generated	EN22
<b>Waste managed</b>	Waste managed on	Percentage of waste managed on	EN10



	total waste generated	generated  (Tons of waste managed/Tons of waste generated) x 100	
<b>Sewage</b>	Total water dumping by quality and destination	Cubic meters of wastewater discharged	EN21
<b>Pollutants</b>	Total direct and indirect emissions of Greenhouse Gases (GG)	Sum of direct and indirect GG in tons of CO <sub>2</sub> equivalent	EN16
<b>USE OR PRODUCTION OF ORGANIC ARTICLES</b>			
<b>Ecological provisioning</b>	Existence of ecological factors of production	(Procurement of ecological products / Total supplies) x 100	
<b>Organic production</b>	Organic products finished	(Volume of organic products / Total of products offered) x 100	
<b>USE OF RECYCLED PACKAGING</b>			
<b>Products sold and recovered packaging</b>	Percentage of products sold and their packaging materials that are reclaimed at the end of its useful life by product category	(Products sold and recovered packaging / Total product sales) x 100	EN27

## CONCLUSIONS

This research has been concluded with the proposed CSR indicators that are related to competitive success in the current context of the Extremadura company. Such indicators allow entrepreneurship in Extremadura know the level of CSR in Extremadura companies after the implementation of this strategy, track that level and be able to check every so often.

The definition of the indicators provided has not been easy. The reason is the novelty of the subject and the lack of generalizable evidence on it. It has become necessary to make an effort to adapt to reality other standardized scales validated for this case.

It has sought to develop a set of indicators of a general nature for a first application in companies with the prospect of its implementation and monitoring enable over time the definition of other indicators that could provide more and better volume of information. In this sense, we must enhance disclosure and transparency with which it is performed, aspects inherent to the CSR itself because working

responsibly means taking full transparency and disclose all actions that companies are doing. From these indicators companies can determine more specifically what the contributions made in the line of each of the items validated for the three dimensions of the CSR: social, economic and environmental.

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## COMPANIES' PERFORMANCE AND THE GREEN ECONOMY IN THE WINE SECTOR

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### ABSTRACT

The wine sector is one of the most representative of both Italy and other foreign countries thanks to the richness of fine wines and a combination of know-how, craftsmanship and traditions held by Italian producers. Therefore, the wine sector represents a key factor for attracting tourism, due to a wine tourism phenomenon which involves both a niche of experts persons and tourists in general.

Our research goals are twofold. The first is to examine the impact of wine consumption trend on Italian and foreign wine companies in terms of economic performance. The second goal is to identify the most relevant green concepts for the wine industry with regard to addressing environmental challenges.

We formulated two research hypotheses correlated to the above goals. The objective of the research was identified through an analysis of the national and international literature on the research topic. In addition, a quantitative and qualitative survey was conducted in order to achieved to research objectives.

It emerged that Italian wine consumption trend negatively impacted on core business performance, while not on the return on equity; despite the world consumption crisis, global wine consumption is kept to a similar extent in pre-crisis period and foreign companies in the sample have obtained an increase in economic performance. In addition, the tendency towards a green economy is also involving the wine sector, due to companies' susceptibility to a greater focus on the environment.

The implications of this study are related to the potential of the wine sector in Italy and in other foreign countries. This sector represents an interesting field of action for related companies in terms of turnover and profitability.

In order to overcome the limitations of the present research, it would be interesting to compare the potential and dynamics of wine consumption on performance with that of other economic sectors, which are also representative of a country economy. Furthermore, some suitable econometric models would be usefull to carry out a simulation on the impact of a series of external and internal variables of the wine market on the performance.

**Keywords:** *wine sector; Italian wine companies; foreign wine companies; performance; green economy.*

## INTRODUCTION

The wine sector is one of the most representative of both Italy and other foreign countries thanks to the variety of fine wines and a combination of know-how, craftsmanship and traditions held by Italian producers. The wine sector is composed of three different groups:

- companies that produce grapes, and then produce and commercialize wine;
- companies that produce and commercialize wine, buying grapes from external suppliers;
- companies that commercialize wine, which is purchased from external supplier.

Wine is a typical export product when the country's product is recognized for its high quality, tradition or competitiveness in terms of quality/price. Therefore, each market is split into domestic and foreign: domestic markets refer to those who live or operate in that country and tourists, while foreign customers are those outside of the country.

This means that the wine sector represents a key factor for attracting tourism, due to wine tourism which involves both experts and tourists in general.

Our research goals are twofold. The first is to examine the impact of the wine consumption trend on Italian and foreign wine companies in terms of economic performance. The second goal is to identify the most relevant green concepts for the wine industry with regard to addressing environmental challenges.

This analysis is placed within our wider study focusing on business opportunities of Italian companies, for which wine can represent an important turnover source (Giacosa, Giovando and Mazzoleni, 2014). It emerged that Italy is the second largest wine producer in the world, after France, thanks to the varied territory, the favorable climate, and the experience and entrepreneurship of the companies.

This study is motivated by observing the profound changes that have taken place in the wine market over the last 20 years in Italy and abroad. The context has been characterized by recent and profound changes in wine consumption, creating new business prospects for wine companies. While wine was considered a local product without much potential for investments and exports until the 1970s, subsequently a following for quality wine has developed. Investments from family firms and big groups in Italian and foreign market increased the scope of the wine sector. In such a context, business opportunities for wine companies become notable. In addition, the movement towards a green economy is interesting in the wine sector for understanding whether wine companies are susceptible to a greater focus on the environment.

## LITERATURE

The wine sector has been considered for its ability to attract tourism, and representing a business opportunity for wine companies (Marks, 2011; Ritchie, 2009) due to a “wine tourism phenomenon” attracting expert persons (Clemente-Ricolfea et al., 2012; Groves and Belk, 1998). In attracting tourism, wine sector has a positive impact on regional competitiveness and its drivers (Jaffe and Nebenzahl, 2008; Viassone, 2009; Vrontis and Viassone, 2013; Zanni, 2004). Wine tourism also effects accelerated change both in terms of sales and production, as a consequence of constantly changing geography in the wine sector (Rossi et al., 2012).

The literature focused on the different types of companies operating in the wine sector, classifying them as:

- bigger companies operating in a global level (Rossi, 2008; Wittwer et al., 2003; Zanni, 2004);
- medium and small-sized companies (Holden and Weber, 1994; Beverland and Lockshin, 2001).

In addition, the wine market has been differentiated in old markets and new markets, such as Chinese and Russian, which are seeing increasing growth in wine consumption (Anderson and Wittwer, 2013). By observing the business model of the companies in the wine sector, they have been classified in two groups: the first one is composed of medium and large wine companies operating in a global market; the second group is composed of smaller companies operating in a niche market and with a modest or insistent internationalization process, which needs network models of organization to increase competitive advantage (Aldrich and Zimmer, 1986; Birley, 1985; Aldrich, Reese and Dubuni 1989; Ohmae, 1989; Brown and Butler, 1995).

In addition, some studies made a comparison between business opportunities in agriculture and manufacturing sectors. The manufacturing sector represents a driving force of the Italian economy. The importance of wine sector (belonging to the agriculture sector) has become clear for the Italian economy, thanks to its ability to increase revenue over the time considered (from 2007 to 2012), in contrast to the manufacturing sector (Giacosa, Giovando and Mazzoleni, 2014).

Several scholars observed performance in wine sector (Heijbroek, 2003; Coelho and Rastoin, 2004 and 2006). In particular, some studies investigate wine performance and show an improvement in some countries, such as French wine companies (Amadiou and Viviani, 2010; Viviani 2009), Greek companies (Venieris, 1989), South African firms (Esterhuizen and van Rooyen, 2006) or Spanish (Suàrez-Ortega and Valamo-Vera, 2005).

Other studies observed the impact of economics and economic sociology on performance, by assessing the role of local inter-firm networks in innovation dynamics and economic performance in a cluster of cooperatives (Chiffolleau et al., 2007).

Several studies focused on the trend of alcohol consumption in different parts of the world,

identifying the relevant economic, social, religious and cultural factors that impact on wine consumption (Trach, 2013; Gillespie, 2005; Thach and Olsen, 2005). Several differences emerged between countries (Trevisan et al., 2011; Thach and Olsen, 2006).

With particular reference to wine consumption, other studies observed the recent changes in wine consumption as a consequence of changes to the socio-demographic, cultural, political and economic behaviour of the context in which companies operate due to several inputs; also the companies' activity impacts on wine consumption by means of a series of outputs (Giacosa, Giovando and Mazzoleni, 2014; López-Valeiras Sampedro et al., 2010; Rohan et al., 2007).

Wine consumption is influenced both by individual characteristics (Hall and Hall, 1990; Harrisson and Huntington, 2000; Peterson and Kern, 1996), and by perceptions of quality in objective and subjective terms (Lancaster, 1971). Objective quality is influenced by intrinsic characteristics of the product in terms of its chemical and organoleptic properties. However, subjective quality is governed by consumer perception connected to his or her preferences (Cavicchi, 2008; Steenkamp, 1989) and could be evaluated according to four dimensions (Brunso, Fjord and Grunert, 2002). These are taste and appearance, healthiness, convenience, and the purchase price.

Several studies focused both on the need to drink wine and the method of its consumption, as well as on the variables that impact on consumers' purchasing choices in terms of brand knowledge (Dotson et al., 2012; Goodman, 2009; Nowak et al., 2004), quality and packaging (de Luca, 2006; Bland, 2004; Pastore and Vernuccio, 2003).

According to green concepts for the wine industry, with thousands of different definitions the discourse field of sustainability has become so wide and divergent that it has largely become irrelevant (Pezzey 1997; Perman, Ma et al. 2003; Hopwood and Mellor 2005). Elkington (1998) introduced the term "triple bottom line" which is the most specific entry relating to sustainability for smaller entities like firms. The triple bottom line refers to the three pillars: economic, social and ecological sustainability. Two distinct versions of sustainability emerged in the 1970's; weak and strong sustainable development (Neumayer, 2003). Weak sustainable development (Weak) and strong sustainable development (Strong) give the three pillars different weight and meaning. The goal in Weak is that utility or consumption does not decline over time (Pezzey, 1997). In practice, social and ecological resources are to be used as input into economic development. Many academics have concluded that this version of sustainability is not sufficient, given the tremendous environmental challenges we are facing (Daly 1999; Zadek 2004; Holden and Linnerud 2007; Nilsen, 2010; Peeters, 2012).

The present study contributes to expanding the literature via the following two observations. Firstly, it verifies the impact of the recent world crisis on the wine sector in terms of both consumption trends



and companies' economic performance. Secondly, it identifies the most relevant green concepts for the wine industry with regard to addressing environmental challenges. It is a very recent phenomenon due to companies' attention to a green strategy: not only in the manufacturing sector, but also in the agricultural one, that the theme of green strategy has to be included in companies' business development plans.

## METHODOLOGY

In order to achieve the research objectives, we have articulated the following research hypotheses:

*H1: The recent world crisis which involved the industrial and financial economy has not strongly affected the wine sector. Indeed, the wine market is particularly susceptible to a strong tradition in drinking wine, influenced by the socio-demographic and cultural context. This is especially true in those countries with a high wine consumption culture.*

*H2: the tendency towards a green economy is involving the wine sector, due to companies' greater focus on the environment.*

To demonstrate the above-mentioned research hypotheses, the research methodology has been carried out in the following phases:

1) First phase: the research hypotheses were analysed by examining the existing literature, according to several topics, such as the characteristics of the wine sector, the different typologies of companies belonging in the sector, wine consumption trends and the performance of wine companies. In addition, we referred to green economy concepts applied to wine sector;

2) Second phase: the research methodology was differentiated in relation to the above hypotheses:

a) With reference to H1: the objective to be reached is quantitative in nature. The analysis of the economic performance of wine companies has been articulated into the following observation focus:

- Italian companies: we firstly analysed the relevance of the wine sector compared to the manufacturing sector, which represents the core of the Italian economic texture. To this end, we compared the index numbers for turnover within the wine sector with that of the manufacturing sector, for the period 2007 to 2011. This allowed us to evaluate the wine sector compared to the manufacturing sector, and establish which one is characterised by positive trends in relation to turnover. Then, we verified the impact of the world crisis on Italian wine consumption from 2007 to 2011. We then observed the impact of Italian wine consumption on the economic performance of a sample composed of the major Italian wine companies. This sample consists of the 108 largest Italian companies with a turnover of more than 25 million Euro (these companies have achieved a total turnover of 2.67 billion Euro in 2011) (Table 1). The economic data observed were the following: turnover, ebitda, ebit, net

earning, ROI and ROE. The quantitative source for both foreign and Italian companies is represented by a series of market data, the processing of which allowed us to deduce wine sector trends drivers in Italy. The market data was obtained from reports of major Italian trade associations operating in the wine sector, as well as the National Institute of Statistics (ISTAT), and the research department of a major Italian bank;

	Revenues 2011 (million Euro)
Cantine Riunite & GIV	498
<i>including: GIV – Gruppo Italiano Vini</i>	368
<i>including: Cantine Riunite &amp; CIV</i>	161
Caviro	247
<i>Gruppo Campari (wine department)</i>	185
Cavit Cantina Viticoltori	152
P. Antinori	150
Mezzacorona	149
Fratelli Martini Secondo Luigi	144
Casa Vitivinicola Zonin	124
Giordano Vini	119
Enoitalia	96
Gruppo Santa Margherita	91
Cantina Sociale Cooperativa di Soave	89
Schenk Italia	88
Casa Vinicola Botter Carlo & C.	87
La Vis	85
Compagnia De' Frescobaldi	83
Gruppo Cevico	83
Collis Veneto Wine Group	63
Contai Spumanti	62
Banfi	62
Masi Agricola	62
F.lli Gancia & C.	61
Casa Vinicola Caldirola	60
Mgm Mondo del Vino	57
Ruffino	57

Table 1. *The top 25 Italian wine companies of the sample- Source: personal elaboration on Mediobanca (2013)*

- Foreign companies: we firstly verified the impact of the world crisis on world wine consumption from 2007 to 2011. We referred to literature that stated that the global crisis began in 2007 (Deaglio, 2008). Subsequently, we observed the impact of world wine consumption on the economic performance of a sample composed of the major wine companies worldwide. This sample consists of

the 13 largest internationally listed companies with a turnover of more than 150 million Euro (these companies have achieved a total turnover of 7.9 billion Euro in 2011) (Table 2). The economic data observed were the following: turnover, ebitda, ebit, net earning and ROE.

Companies	Countries
Constellation Brands	USA
Treasury Wine Estates	Australia
Distell Group	South Africa
Vantai Changyu Pioneer Wine	China
Vma Concha y Toro	Chile
Vranken-Pommery	France
Lans on-BCC	France
Sektkellerei Schloss	Germany
Laurent Perrier	France
Andrew Peller	Canada
Vma San Pedro Tarapaca	Chile
Advini	France
Australian Vmtage Ltd	Australia
Vma Santa Rita	Chile

Table 2. *The sample of foreign wine companies- Source: personal elaboration on Mediobanca (2013)*

b) With reference to H2: the objective to be reached is qualitative in nature. We made a brief overview of the most relevant concepts for the wine industry with regard to addressing environmental challenges. We tried to emphasise how the concept of ecological sustainability is applied in the wine sector, referring to strong sustainable development or strong sustainability.

## RESULTS

In this section, the research results are presented in relation to the following observation points:

- The performance of the Italian and foreign wine companies (*referred to H1*);
- The green concepts for the wine industry (*referred to H2*).

### *The economic performance of Italian and foreign wine companies*

The analysis of the economic performance of wine companies has been articulated into the following observation focuses:

- Italian companies;
- Foreign companies.

Before observing the economic performance of the Italian wine companies, we verified the relevance of the Italian wine sector within the Italian economic context. For this purpose, we compared the wine sector trends in terms of sales to that of the Italian manufacturing sector, which constitutes a driving force of the Italian economic system (Table 3).

	2007	2008	2009	2010	2011
Wine sector	100.00	102.30	98.60	102.90	112.00
Manufacturing sector	100.00	100.60	83.20	89.80	96.10

Table 3. *Wine sector and manufacturing sector turnover comparison (index numbers of turnover)- Source: Giacosa, Giovando and Mazzoleni, 2014 on Mediobanca, 2013 data*

It emerged that wine sector turnover increased over time, despite the global financial crisis for which there was a sales reduction in 2009. This trend didn't hold true for the manufacturing sector: pre-global financial crisis levels were not reached in 2011. In 2011, wine sector turnover was about 17% higher than that of the manufacturing sector. Therefore, the wine sector is an important one for the Italian economy, due to its ability to increase revenue over the time considered: which has not been the case in the manufacturing sector.

The wine sector has a comparable relevance to the Italian economic system to the manufacturing sector. To explore this issue, we considered the ability of Italian wine companies to attract foreign consumers. The origin of turnover according to end markets is shown below (Table 4).

	2007	2008	2009	2010	2011
Domestic market	6.2	0.3	-3.5	0.6	5.6
International market	8.2	4.8	-3.9	8.9	12.6
Total revenues	7.1	2.3	-3.7	4.4	8.9

Table 4. *Origin of turnover to end markets (% variation compared to previous year- Source: Giacosa, Giovando and Mazzoleni, 2014 on Mediobanca, 2013 data*

It emerged that a great ability to attract foreign customers and exports have been major driving forces for turnover growth within the sector: indeed, Italian wine is globally recognised as being good quality. In particular, in 2011 and export sales are more than double sales in Italy.

When considering export volumes, Italy is clearly a more important player (21 million hectoliters of wine) than France (15 million hectoliters of wine), although the turnover generated by exports was higher for France (7.9 billion euros) than Italy (4.7 billion euros) (Wine Monitor, 2012). Large and medium companies have a tendency towards exporting (exports represent more than 90% of sales for some companies), while export sales are marginal or non-existent for small companies. The most popular markets for Italian wine are the USA, with 1.054 million euros of exports, a revenue growth

of 8% and volumes growth of 2% compared to the previous year; Germany, with a billion euros of turnover and a new exports market of about 7%; the UK, with 570 million euros turnover and a new exports market of about 9%; and Switzerland, with 311 million euros turnover, and purchase of 700 thousand hectoliters, despite a reduction in exports of 9% compared to the previous year. Therefore, the wine sector is an important sector for Italian companies, as Italy is the second largest wine-producing country in the world, after France.

We can conclude that the wine sector is important to the Italian economic context when compared to the manufacturing sector and that it has a strong ability to attract foreign consumers.

With reference to *H1*, we firstly analysed Italian wine consumption compared to world wine consumption (Table 5).

	2007	2008	2009	2010	2011	Var. 2007-2011 (%)
Italy	26,7	26,2	23	24,6	23,1	-13.5
Total world wine consumption	251,1	245,2	243,3	242,2	243,8	-2.9

Table 5. *Italian wine consumption (in hl/000.000)- Source: OIV, 2013*

World wine consumption decreased by 2.91% from 2007 to 2011, while Italian wine consumption decreased of 13.5%. Therefore, it seems that the world consumption crisis has had a stronger negative impact on Italian wine consumption than world wine consumption.

Then, we investigated the impact of the global crisis on the economic performance of a sample of 108 major Italian companies in the wine sector whose turnover is over 25 million euros (Table 6). Of these major Italian companies, the one with the biggest turnover is Cantine Riunite (498 million euros turnover in 2011), whose revenue is seventh in the world wine sector. Other Italian companies with remarkable turnovers are Caviro (247 million euros) in 11th position, a division of Campari Wine (185 million euros) in 16th position, Cavit (152 million euros) in 19th position, and P. Antinori (150 million euros) in 20th position (Mediobanca, 2013).

Years	2007	2008	2009	2010	2011	Var. 2007/2011
Revenues	4,394	4,495	4,330	4,521	4,923	12.0
Ebitda	436	387	385	436	459	5.3
Ebit	252	197	191	240	254	0.8
Net earning	58	34	64	142	99	70.7
ROI (%)	6.3	5.2	4.8	5.6	5.9	-6.3
ROE (%)	2.7	1.8	3.2	6.6	4.4	62.7

Table 6 – *Economic data at the aggregate level of main Italian wine companies (dati in €/000.000)- Source: Mediobanca, 2013*

Even if Italian wine consumption decreased by 13.5%, the turnover at the aggregate level increased by 12% over these years, beyond a downturn in 2009. Ebitda increased by 5.3% and net earning strongly increased by 71%). Core business performance (ROI) was 5.9% in 2011 (with a decrease of 6.3%), while the return of equity (ROE) was 4.4% in 2011 (with a strong increase of 62.7%).

Therefore, it seems that the negative trend of wine consumption has had a negative impact on ROI. However, the negative wine consumption trend has not had a negative impact on ROE.

*H1 is partially confirmed:* Italian wine consumption trends negatively impacted on ROI, but not on the ROE.

With reference to the H1, we also analyzed the trend of world wine consumption from 2006 to 2011 to assess the impact of the global crisis on consumption (Table 7).

	2006	2007	2008	2009	2010	2011
France	33	32.2	30.8	30.2	28.9	29.3
USA	27.2	28.3	28	27.3	27.6	28.4
Italy	27.3	26.7	26.2	23	24.6	23.1
Germany	20.2	20.8	20.7	20.2	19.7	19.7
China	13.3	13.6	13.7	15	15.8	16.3
UK	12.7	13.7	13.5	12.7	13.2	12.9
Argentina	11.1	11.2	10.7	10.3	9.8	9.8
Spain	13.5	13.1	12.2	11.3	10.4	9.9
Russia	10.8	11.7	11.3	10.1	-	-
Australia	4.6	4.8	4.9	5.1	5.3	5.3
Romania	5.5	5.5	5.4	4.9	-	-
Portugal	4.8	4.5	4.5	4.5	4.7	4.6
Canada	4	4	4	3.7	-	-
Brazil	3.5	3.3	3.3	3.5	3.5	3.8
Holland	3.5	3.6	3.8	3.5	3.5	3.8
South Africa	3.4	3.6	3.6	3.4	3.5	3.5
Chile	2.4	3	2.3	3.1	3.2	3
Other Countries	43.2	47.5	46.3	51.5	68.5	70.4
<b>Total</b>	<b>244</b>	<b>251.1</b>	<b>245.2</b>	<b>243.3</b>	<b>242.2</b>	<b>243.8</b>

Table 7. *Wine world consumption (in hl/000.000)- Source: OIV, 2013*

This analysis shows that world wine consumption is almost constant over time. A detailed analysis of the individual countries in the sample shows that, except for the increase in China (13.3 to 16.3) and the decrease in Italy (from 27.3 to 23.1), for the other countries the consumption is almost constant over time. Therefore, the global downturn in consumption does not seem to have had an impact on world consumption in the wine industry globally: the global players in the wine industry divide a market that does not seem to decrease.

Below, the distribution of wine consumption among the different continents in 2011 is shown (Table 8).

Countries	North America	South-Central America	Europe	Asia, Australia and New Zealand	Rest of the World
% of wine consumption	37.40	56.00	23.40	18.70	14.90

Table 8. *Distribution of wine world consumption (2011)- Source: personal elaboration on Mediobanca, 2013*

America (North America 37.40% and Central and South America 56%) is a major wine consumer, followed by Europe and then the other continents.

We said that the world wine sector was not affected by a global consumption crisis, subsequently, it was observed that the world's wine consumption trend has had repercussions on the economic performance of the main wine groups in the sample (Table 9).

Years	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	Var 2002/2011
Revenues	5.267	6.104	6.400	7.022	7.178	6.478	6.559	6.451	6.708	6.598	25.27%
Ebitda	881	1.075	1.054	1.195	1.201	1.181	1.192	1.240	1.280	1.325	50.40%
Ebit	726	887	875	986	992	944	956	1.007	1.061	1.118	53.96%
Net earning	350	389	435	439	492	-152	-2	475	872	854	144.00%
ROE (%)	11.25	9.79	9.56	9.11	10.16	-3.28	-0.05	9.76	16.59	15.14	-

Table 9 – *Economic data at the aggregate level of the main groups in the world (in € / 000,000)- Source:*

*Mediobanca, 2013*

Analyzing first of all the turnover and net profit in the aggregate sample, we see a substantial growth over the years, apart from a decline in the years 2007 and 2008. We can see that the crisis emerges in a small way in the wine sector in the years 2007 and 2008, followed by a marked improvement in subsequent years. In addition, comparing the aggregated net income data for the sample with world wine consumption from 2009 to 2011, shows that compared to constant consumption of wine, there is a marked increase in the aggregate net income from 2009 to 2010 and a slight decrease from 2010 to 2011.

To analyse the impact of the global crisis on the economic performance of the major groups in the industry worldwide in the sample, we compared the trend with EBITDA, EBIT and Net Earnings. EBIT and EBITDA showed continued growth. It appears that companies' core business has always been growing notwithstanding the economic crisis. Moreover, this steady growth also occurred in 2007 and 2008, the year in which income decreased. The trend of ROE has been steadily increasing from 2002 to 2011 if we consider the period as a whole: despite a decline from 2003 to 2005 and the decrease of profitability in 2007 and 2008, there has been a steady increase since 2009, reaching very significant values both in 2010 and in 2011 (with a decrease in 2011).

With reference to the main world wine groups, H1 is confirmed. Despite the world consumption crisis, global wine consumption has kept to a similar level as in pre-crisis period (2003 to 2006). After a setback in 2007 to 2008, the companies in the sample have managed to increase their economic performance.

### *Green concepts for the wine industry*

With reference to H2, it emerged that one of the future challenges and opportunities for business development is represented by global environmental degradation visible through the serious problems induced by man-made climate change, and industries' green initiatives in response to this situation. We must define what we mean when we talk about and use the various green concepts. This part gives a brief overview of the most relevant concepts for the wine industry with regard to addressing environmental challenges; sustainability<sup>1</sup>, the "triple bottom line", organic and biodynamic production, carbon footprint and LCA. We focus on the most important differences, how some of them are related and offer some examples from the literature on the wine industry.

This research refers to Elkington issue (1998) about the "triple bottom line". In the literature, we said that many scholars stated that this version of sustainability is not sufficient, given the tremendous environmental challenges we are facing (Daly 1999; Zadek 2004; Holden and Linnerud 2007; Nilsen, 2010; Peeters, 2012), and this paper supports that conclusion. Instead, we look further into Strong sustainability. This is the only discussion in this part of whether the concept itself is actually appropriate to mitigate the environmental situation. For all approaches, critical investigations must be made to avoid contributing to green-washing and green rhetoric (Norman and MacDonald, 2004).

Strong sustainability is defined as giving the three pillars equal weight; they are all to be concentrated. The first pillar, economic sustainability, is addressed in the other parts of this paper through the concept of performance. The second pillar, social sustainability is often described at community level. It is challenging to find encompassing definitions, but the following two descriptions capture some of its complexity: 1) A community is to be continually in the process of creating physical and social environments and enhancing those community resources which enable people to mutually support each other in fulfilling the functions of life and attaining their full potential (Newton, 2000). 2) A life-enhancing condition within communities, and a process within communities that can achieve that condition (McKenzie, 2004). In practical business life, Pratt states that firms which have a vision for social sustainability, have staff who tend to work harder, have greater company loyalty, and demonstrate more enjoyment in their work ((Pratt and Pratt, 2010) referred to in (Thompson and

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<sup>1</sup> "Sustainability" is mostly used through this paper, as short for "sustainable development". There are however nuances between the two, which we will not explore here. Also in this chapter "ecological" is most often used, instead of the broader and more anthropocentric term "environmental".



Forbes, 2011)). A case study of a wine producer in New Zealand finds that social responsibility is created by treating all staff as stakeholders in the business. The same study points to the existence of and huge potential for farmers to join networks in local communities to share experiences and resources. (Thompson and Forbes, 2011). The concept of corporate social responsibility (CSR) could be elaborated upon here, but due to the limited space, we just point to possible common features between the concept of social sustainability and CSR.

The third and last pillar of Strong sustainable development is ecological sustainability which can be defined as the degree of a practice to which activities can be continued indefinitely, without negatively altering the limiting factors that permit the existence and flourishing of other groups of entities, including other organisations (Starik and Rands, 1995). Limiting factors determine the carrying capacity of a given ecosystem for a type of entity and include food, water, shelter, breeding and rearing sites, predators, competitors, disease organisms and other toxins (Odum, 1989) for living species.

Corporations stand to benefit from moving toward ecological sustainability by reducing costs through ecological efficiencies, capturing emerging green markets, gaining first-mover advantage in their industries, ensuring long-term profitability, establishing better community relations, and improving their image (Shrivastava, 1995).

Several more recent concepts have emerged which can contribute to ecological sustainability; organic (Lawrence, Cheshire et al. 2004), biodynamic, LCA and carbon footprint. Organic is the most widespread green approach in the wine industry and in general it means wine made from organic grapes. In 2012 the EU arrived at common rules for organic wine (European Commission 2012). EU organic vineyards are mostly located in the EU-15, with Spain cultivating the biggest area in 2011, followed by France and Italy (European Commission 2013).

Although addressing overconsumption in the affluent part of the world is a significant part of creating ecological sustainability (Røpke 2006; WWF, 2010), consumers are at the same time contributing to greening the wine industry as described by Bisson et.al.: “As consumers become more aware of the vulnerability of our global environment, the demand for sound agricultural production practices is increasing. In the future, the perception of the producer as a conscientious environmental steward will be an important influence on the consumer’s purchasing decision. This is due in part to the fact that the typical wine consumer is well educated and affluent” (Bisson, Waterhouse et al. 2002). An example from the consumer side in Norway, a non-EU member, is that organic wine is the only officially registered green concept for wines. All providers of organic products in and to Norway, must be certified by the organisation Debio ([www.debio.no](http://www.debio.no)). There has been a steady increase in organic wine

consumption in Norway for many years, although market share is still only about 1% (Vinmonopolet March, 2014)<sup>1</sup>.

Biodynamic refers to an agricultural system with a holistic approach in the spirit of anthroposophy and Rudolf Steiner, which in short introduces additional requirements to an organic system. Biodynamic farming notes the interdependence of nature and the lunar effect on active soils. Biodynamic winemakers allow the vineyard to operate as a self-sustaining entity within the surrounding ecosystem, placing emphasis on all living organisms contributing to the farm (Stasi, Seccia et al. 2010).

Life cycle assessment (LCA) is an approach that assesses the broad environmental impacts associated with a product, a material or an activity. A thorough LCA involves analysing the whole life span of the unit at hand (Ingebrigtsen and Jakobsen 2007), more popularly described as a cradle-to-grave approach. Carbon footprint also takes a cradle-to-grave approach, but is limited to estimating greenhouse gas (GHG) emissions. Cichelli et.al. (2012) has done a case study using carbon footprint analysis of an Italian wine product, and comparing it with a LCA on the same product. The International Organization of Vine and Wine (OIV) has issued general principles of measuring GHG emissions from the wine industry (International Organisation of Vine and Wine 2011).

*H2* is confirmed. We have produced a brief overview of the most relevant green concepts for the wine industry, offering examples and literature to proceed further. We have tried, in this very limited space, to specify how each concept is different. The last concepts however, can all contribute to ecological sustainability, but ecological sustainability is still only one out of 3 pillars in the much broader concept of strong sustainable development or strong sustainability. Being specific about these green concepts makes it easier to investigate if and how the wine industry, and others as well, can contribute to a greener future.

## CONCLUSIONS, IMPLICATIONS AND LIMITATIONS

The wine sector represents an important driver both for Italy and other foreign countries, thanks to the variety of fine wines and a combination of know-how, craftsmanship and traditions held by producers. In these terms, the wine sector has been considered a key factor for increasing tourism, due to its ability to attract both experts and tourists in general.

We investigated the impact of wine consumption trends on Italian and foreign wine companies in terms of economic performance. It emerged that, despite the Italian wine consumption having

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<sup>1</sup> Vinmonopolet has the exclusive right to retail wine, spirits and strong beer in Norway. The figures can be obtained by contacting them directly by e-mail.

decreased by 13.5%, the turnover of the sample companies increased by 12% over the years, apart from a downturn in 2009, Ebitda increased by 5.3% and net earning strongly increased by 71%. Italian wine consumption trends negatively impacted on core business performance (the ROI was 5.9% in 2011, with a decrease of 6.3%), but not on the return on equity (the ROE was 4.4% in 2011, with a strong increase of 62.7%). Therefore, H1 is partially confirmed: Italian wine consumption trends negatively impacted on core business performance, but not on the return on equity.

For foreign companies, it emerged that turnover, Ebit, Ebitda and net profit showed a substantial growth over the years, apart from a decline in the years 2007 and 2008. In addition, return on equity (ROE) has been steadily increasing from 2002 to 2011, if we consider the whole period. Despite the world consumption crisis, global wine consumption has remained at a similar level to the pre-crisis period (2003 to 2006); indeed, after a setback in 2007 to 2008, the companies in the sample have managed an increase in economic performance. Therefore, H1 is confirmed.

As an additional goal, we identified the most relevant green concepts for the wine industry with regard to addressing environmental challenges. A brief overview of the most relevant green concepts for the wine industry emerged. We specified how each concept is different in the wine sector and how it can contribute to ecological sustainability. Therefore, the tendency towards a green economy also involves the wine sector, due to companies' susceptibility to a greater focus on the environment. H2 is then confirmed.

The implications of this study are related to the potential of the wine sector in Italy and in other foreign countries. This sector represents an interesting example for related companies in terms of turnover and profitability. This is applicable to wine companies, as well as to those operating in other areas related to wine, such as wine bars, restaurants, food and wine management and e-commerce companies, research laboratories, and wine consulting firms.

In order to overcome the limitations of the present research, it would be interesting to compare the potential and dynamics of wine consumption on performance with that of other economic sectors, which are also representative of a country economy. Furthermore, through the use of suitable econometric models, it would be interesting to carry out a simulation of the impact of a series of external and internal variables of the wine market on the performance.

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## THE EVOLUTION OF ITALIAN INSURERS' ASSETS BOOK VALUE

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### ABSTRACT

This research aims to analyse the dynamics of the book value of assets of a cross-section of all Italian insurers between 1998 and 2012, correlating this with Italian nominal GDP in the same period. Subsequently, to permit more in-depth investigation of these dynamics, the research moves from an analysis of the absolute values to analysis of the rates of change of the book value of assets of the insurers included the sample with those of the Italian GDP. Lastly, for more detailed analysis, attention has been focused on certain items of assets considered particularly significant.

**Keywords:** *Italian insurance, balance sheet, GDP, technical provisions, liabilities, investment .*

### INTRODUCTION

The financial crisis, started with the sub-prime crises in 2007, has a strong impact on financial decisions of both banks and insurance companies, as well as for the entire financial sector (Billio et al. 2012, Schich, 2010). Financial institutions changed their investment decisions and objectives, as it can be seen in changes in their financial statements and, most of all, in their balance sheets, as the attention to different kinds of risks and risk management policies increased (Baxter et al. 2013; Geneva Association Systemic Risk Working Group, 2010) . Many studies focused their attention on the period before the financial crisis and others mainly dealt with the consequences of the 2007/2008 fall (Adrian, 2011). We think that not enough emphasis has been paid considering longer periods that goes beyond specific events. That is why in this paper we focused our attention to a fifteen-years period, in order to catch the differences that may have happened in long-period trends. We think that in the financial sector a strong concern about short-period effects may bias and fade deeper long term occurrences. Other studies (Zhiguo, 2010) considered only specific items or group of assets, but a general, integrated and systemic view of the changes in the entire balance sheet asset-side is missing.

The innovative aspects of our research may be the following ones:

- 1- it considers long-term period instead of only short time ones;
- 2- it concentrates to the specific insurance sector (that have some peculiar characteristics, specific laws, rules and regulators)



- 3- it is focused on changes in the asset-side of the companies in an integrated and systemic view.

Similarly to any other company, insurers maintain relationships with the surrounding environment and can be represented by an "input-output" model (Ferrero, 1987) according to which they obtain a set of inputs from the environment, consisting of factors of production, constraints and conditions and, through a process of transformation, generate a set of outputs. Together with banks, financial intermediaries and credit institutions, insurers form part of a so-called "financial system". The financial system links the entire economic system through financial relations (Onado, 2000). Within this system, insurers carry out their business according to a different methodology. In fact, in the insurance sector, the production cycle is inverted, i.e. they first of all sell their insurance products and then furnish the related services, incurring typical costs through payment of claims and payment of benefits in the form of annuities or payment of a capital sum.

This difference in their production cycle, compared with an industrial enterprise, has repercussions on all management aspects (Marchionni, 2006) of both Non-life or Life business. In fact, insurers may provide Non-life and Life coverage.

In Non-life business, the insurance contract transfers a risk (so-called "pure risk") from the insured to the company. Non-life business is usually divided into:

- personal insurance, offering protection against the risks of personal accident or illness;
- property insurance, offering protection of property against various risks (fire, theft);
- liability insurance, offering protection against any reimbursements that the insured may be required to pay for third party damages.

In Life business, the insurer promises to pay the insured a benefit in the form of an annuity or a capital sum on occurrence of a specific event affecting the life of the insured. Life insurance products generally cover pension schemes, protection, savings and investment.

This research aims to analyse the dynamics of the book value of assets of a cross-section of all Italian insurers between 1998 and 2012, correlating this with Italian nominal GDP in the same period. Subsequently, to permit more in-depth investigation of these dynamics, the research moves from an analysis of the absolute values to analysis of the rates of change of the book value of assets of the insurers included the sample with those of the Italian GDP. Lastly, for more detailed analysis, attention has been focused on certain items of assets considered particularly significant.

This research adopts a different approach to previous works proposed in literature as regards empirical profile. More specifically, the study has been carried out on a section of the balance sheet of insurers that is not frequently analysed and considering a much broader time frame. This has made it possible to highlight changes in the balance sheet items analysed following modifications in the external

environment in the same period. In particular, this period was affected by a far-reaching worldwide crisis involving, in particular, the financial sector and, consequently, also companies operating on the Italian market. The sample considered is particularly representative as it comprises all insurance companies operating in Italy, both listed and unlisted.

## LITERATURE

In addition to banks, credit and financial intermediaries, the financial system also comprises insurers (Schich, 2010, Forestieri & Mottura 2000) which have always been studied from many different angles. One of the main issues addressed by academics is the risk factor inherent in insurance business (Billio et al., 2012, Di Cagno & Adamo, 2000); in fact, final consumers transfer any negative economic effect of a specific risk to insurers (Bertini 1987, Hedges 1963). Certain researchers have, therefore, addressed and investigated theoretical models for optimisation of risk management at insurance companies (Baxter, 2013, Browne, 1995, Cummins & Sommer, 1995, Fleming and Zariphopoulou 1987) or developing an assets/liabilities management model using multistage stochastic programming able to determine an optimal investment strategy such as to permit correct definition of risks by insurers' governance structure (Carino et al 1994) with problems also tied to reinsurance (Cao and Wan 2009, Zhang and Siu, 2009).

National and international regulations have attempted to control and monitor the many risks inherent in insurance business. Controls applied on the insurance market have focussed in particular on relationships between risk and solvency, reflected in the Solvency project and its last update, Solvency II, now being completed (Wagner J., 2014, Schumacher L, Barnhill, T.M. Jr. 2011). This issue has been investigated from several viewpoints (Gryglewicz, 2011, Sherris 2006, Butsic 1994), dedicating particular attention to insurers' economic capital, i.e. Solvency Capital Requirements, and many observers have focussed on evaluating insurers' balance sheets to verify compliance with the necessary capital requirements (Meyers 2003, Mildenhall 2002, Myers et al 2001); the financial stability of insurers between different continents has also been verified (Siegel 2013). Other studies have generally addressed insurers' balance sheets from the point of view of international (Zhiguo, 2010, Floreani, 2008 Focarelli and Doni, 2006) and national (Bocchino et al, 2012, Cameran, M. 2000; Selleri, 1991) accounting standards. Others have concentrated on the way in which certain balance sheet items of insurers have been influenced by reporting or fiscal objectives (Gaver et al, 2010, Koijen et al., 2013) or by underestimation of technical provisions on the balance sheet (Petroni 1992) or verifying the adequacy of reserves (liability adequacy test) (Giovando, 2006). Various observers have examined the relationship between a series of stochastic models used by insurers and the dividend distributed by these to their shareholders (Haili Y. and Yijun H, 2010, Lin X. S, 2003, Taksar, 2000).

Our analysis concentrates on items of assets on the balance sheet of Italian insurers. Many studies of the business world have examined the relationship between balance sheet items and economic data or macroeconomic variables. At the start of the 1990s, (Gibrat, 1930) highlighted a relationship between growth and firm size; subsequently (Storey 1994) included amongst the fundamental variables for analysis of a company, i.e. growth and performance, also size and age and the total assets variable as proxy for measuring the size of the company is used for “modern companies” (Chen C., Jaggi B., 2000). However, none of these types of analyses has been carried out at insurers in the period considered. More specifically, our research considers the period 1998-2012, a broad time horizon that makes it possible to overcome short-term business cycle trends, and a sample of the entire Italian insurance sector, generating incremental results compared with existing literature from an empirical point of view. Consequently, the results obtained provide a “snap-shot” of the economic situation of insurers.

## METHODOLOGY

This study addresses certain elements of the balance sheet of Italian insurers, observed in the period between 1998 and 2012. This period selected represents one the most significant aspects of this study as, covering a time frame of fifteen years, it permits representation of the phenomena irrespective of short-term economic trends and captures more in-depth structural dynamics.

The research has been carried out in the following phases:

1. phase 1 – definition of the aims of the research and review of literature on the dynamics of the book value of assets of insurance companies
2. phase 2 – analysis of the aggregate financial accounts of Italian insurers and data collection, with particular attention to the dynamics of the book value of assets compared with the trend of Italian GDP
3. phase 3 – within the dynamics of the book value of assets, analysis of the evolution of the asset categories, with a focus on two groups of specific items: investments and reinsurers’ share of technical provisions
4. phase 4 – analysis and interpretation of the data.

The data refer to the entire universe of Italian insurers, the number of which obviously varies over the years. For 2012, 235 insurers have been considered. Various comparisons have also been made with the universe of European insurers. The balance sheet data used are the aggregate data of the entire sector. The data of the balance sheets and of other insurance sector indicators have been taken from ANIA (Associazione Nazionale fra le Imprese Assicuratrici), IVASS (Istituto per la Vigilanza delle Assicurazioni) and CEA (European Insurance and Reinsurance Federation) databases, suitably

integrated with data taken from the statutory accounts of the main insurers. Other data have been obtained mainly from ISTAT (Istituto Nazionale di Statistica) and EUROSTAT.

For this purpose, our *main hypothesis* is based on the consideration that the business of Italian insurers, according to the type of activity carried out, is substantially “rigid” over the years and, compared with macroeconomic variables such as GDP, tends to conform with these. Subsequently, it has been considered interesting to verify the composition of the book value of assets of insurers and how this has changed in the period considered. The schedule of the Balance Sheet – Assets of insurers reflects items characterised by an increasing level of liquidity and collectability for both Non-life and Life business. The classification of items of the “Balance Sheet - Assets ” section envisages a distinction between “durable fixed assets” and “non-durable fixed assets” whereby the former comprise assets held for the purpose of continued use in the business of the company consistently with company management strategy in accordance, therefore, with certain assumptions concerning long-term use (the investments set forth in class B “intangible assets”, CI “land and buildings” and CII “investments in Group companies and other shareholdings” are considered to be durable fixed assets).

Debtors (receivables) are not classified according to a time criterion as in any other type of balance sheet but according to the nature of the transaction and related counterparty, making an initial distinction between debtors arising out of direct insurance operations (or direct business) and debtors arising out of reinsurance operations (inward reinsurance) followed by a subsequent distinction according to counterparty, i.e. insureds, intermediaries, insurance companies and reinsurers. The condensed Balance Sheet of an Italian insurance company (according to Italian GAAP) is shown below indicating only the macro-classes:

ASSETS	LIABILITIES and EQUITY
A) Amounts Owed By Shareholders	A) Capital And Reserves
B) Intangible Assets	B) Subordinated Liabilities
C) Investments	C) Technical Provisions
D) Investments To The Benefit Of Life Policyholders Who Bear The Investment Risk And Deriving From Management Of Pension Funds	D) Technical Provisions For Investments To The Benefit Of Life Policyholders Who Bear The Investment Risk And Deriving From Management Of Pension Funds
D Bis) Technical Provisions Borne By The Reinsurers	E) Provisions For Risks And Charges
E) Amounts Owed By Debtors	F) Deposits Received From Reinsurers
F) Other Assets	G) Debts And Other Liabilities
G) Accruals And Deferred Income	H) Accruals And Deferrals

Table 1. *Condensed Balance Sheet of an Italian insurance company (according to Italian GAAP)*

## MAJOR FINDINGS

The first phase of the study was dedicated to analysing the dynamics of the book value of assets over the fifteen years considered. As seen in the review of literature, the book value of assets is commonly used as proxy of firm size. Between 1998 and 2012, the aggregate variable “total assets”, aggregated for

all the Italian insurers studied, showed a marked growth trend, in nominal terms, with an almost threefold increase in value between the start and end of the period considered (+182%). The mean annual growth rate was 7.15%. The only two years in the entire period considered in which total assets decreased were 2007 and 2008 when the international crisis made its effects felt at international level (summer of 2007 with the sub-prime crisis mainly on the US market, summer/autumn 2008 with numerous bailouts of banking and insurance colossus (the case of AIG, according to Forbes 2000 the sixth world-wide insurance colossus, whose stock slumped by more than 40% in 2008 can be considered emblematic), the shrinkage of the stock market (on September 15th 2008 the Dow Jones index closed down just over 500 points, marking the largest drop from the period immediately after the September 11th attacks) and the Lehman Brothers bankruptcy. (Grynbaum, 2008)

To discover the factors that affect the trend of the “book value of total assets” variable of Italian insurers, an initial significant comparison can be made with nominal GDP.

The graph highlights a noteworthy similarity between the trends of total assets of Italian insurers and Italian GDP. In particular, it can be seen that the trend of insurers’ total assets apparently “anticipates” GDP dynamics by around one year. This prompts a number of preliminary considerations. Firstly, as it is not possible to establish a direct cause-effect relationship between the two variables, the most plausible hypothesis for interpretation would seem to be that both variables depend on the macroeconomic and business cycle context. In other words, both variables (the “size” of the insurers and Italian GDP) depend on an articulated, complex set of economic variables that constitute a “proxy” of the situation of the economic system. By definition, albeit not without contestations and problems, a country’s GDP is used as synthetic macroeconomic indicator to represent its “state of health” (amongst others, a country’s GDP also comprises the insurance sector although in terms of revenues and not of insurance assets; in other words, considering a country’s GDP as the sum of the values added of all undertakings operating in a given economic system (Castellino, 2002).

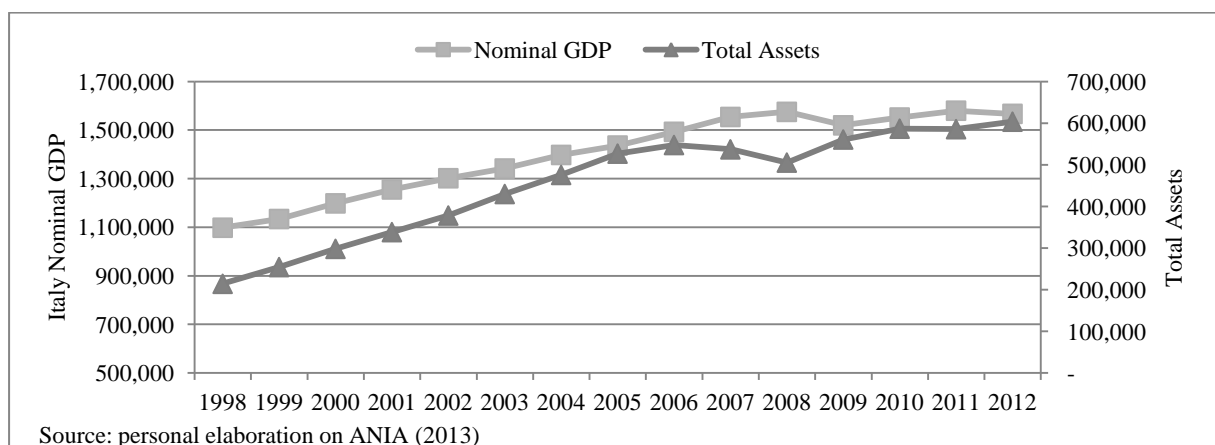


Figure 1. *Nominal GDP and Total Assets evolution*

Secondly, the fact that insurers' assets reflect the dynamics of GDP one year in advance could suggest that the financial and insurance market reacts more "quickly" to changes in the economic context compared with GDP which, insofar as a global macroeconomic indicator of the real economy, is structurally "slower" in reflecting inversions of cycle as it considers the universe of all the production activities of an economic system (including industrial activities and those that, as opposed to services and in particular the financial sector, react more slowly to changes in demand. Consider, for example, the necessarily longer reaction times in terms of acceleration or slowing of the production activity of a large industrial enterprise that may also have backlogs of orders to be filled and work in progress).

Thirdly, the "anticipatory capacity" of the size variable of insurers, which must necessarily be investigated in more depth in more specific, dedicated studies, could be used to forecast economic trend, as is the case in other sectors and categories (for example, luxury goods often used as economic cycle "indicators").

For more in-depth observation of the dynamics considered, it is useful to move from examining absolute values to rates of change. Comparing the rates of change of the book value of assets of Italian insurers with those of Italian GDP, it is possible to observe the following dynamics.

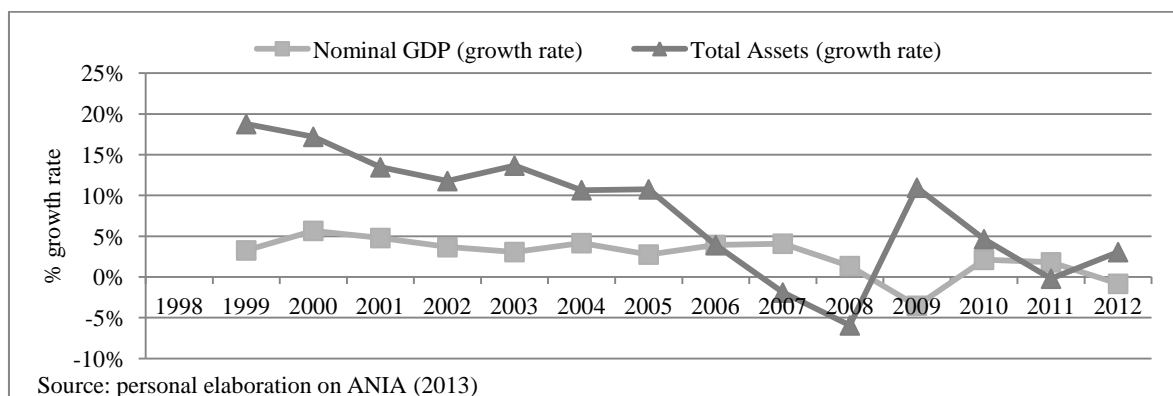


Figure 2. *Nominal GDP and Total Assets growth rates*

As opposed to the long-term growth rate revealed by examining the absolute values, the rates of change of total assets of Italian insurers show an evident downturn between 1999 (compared with 1998) and 2008, a "rebound" in 2009 and then a further decline in subsequent years.

The rate of change of insurers' total assets is characterised by much greater volatility than GDP. This is fairly evident considering that GDP is a much broader indicator that reflects the dynamics and changes in the entire economic system. Insurers' assets are, therefore, much more "dynamic" and tend to amplify economic changes.

Also in terms of rates of change, the around one year anticipation of total assets in relation to GDP is confirmed. The decline in GDP between 2007 and 2009 is in fact anticipated by total assets between 2006 and 2008, with a "rebound" in 2009 (corresponding to the upswing in GDP in 2010).

To permit more in-depth analysis, the third phase of the research focussed on certain items of the book

value of assets of insurers considered particularly significant, i.e. investments and reinsurers' share of technical provisions.

As is known, the balance sheet of an insurance company reflects the typical nature of insurance business, for example with regard to the so-called "inverted cycle" phenomenon deriving from the fact that revenues are anticipated compared with costs. On the one hand, this involves recording of "technical provisions" under liabilities and, on the other, stresses the importance of the book value of investments used to "cover" provisions. Therefore, the dynamics of the book value of investments of an insurance company reflect the company's asset management decisions regarding coverage of technical provisions, i.e. commitments assumed towards insureds. It must be stressed that, as the insurance sector is strictly regulated, the criteria adopted regarding investments covering technical provisions are not entirely at the discretion of the company and must comply with various requirements imposed by the regulator that are usually reflected in three conditions: liquidity (variable according to the type of insurance, as it is evident that the liquidity requisite must be weighted according to the specific characteristics of the type of insurance whereby, for example, for Life business, it will be determined in a different measure from Non-life business), profitability and safety.

A further specific aspect of insurance business concerns the dynamics of the reinsurance phenomenon according to which part of the risks are "ceded" to other insurers i.e. to specific reinsurers. The impact of this activity on the balance sheet concerns the recording under assets of provisions corresponding to portions of risk ceded in reinsurance. Therefore, the trend of the reinsurers' share of technical provisions reveals the dynamics and behaviour of insurers with regard to cession of risks in reinsurance. The investments and, subsequently, provisions ceded in reinsurance are examined and commented on below.

Examining the trend of investments, it can be observed that these reflect to a significant extent the trend of total assets, thereby confirming that these are the main, most significant item of assets on the balance sheet for an insurance company.

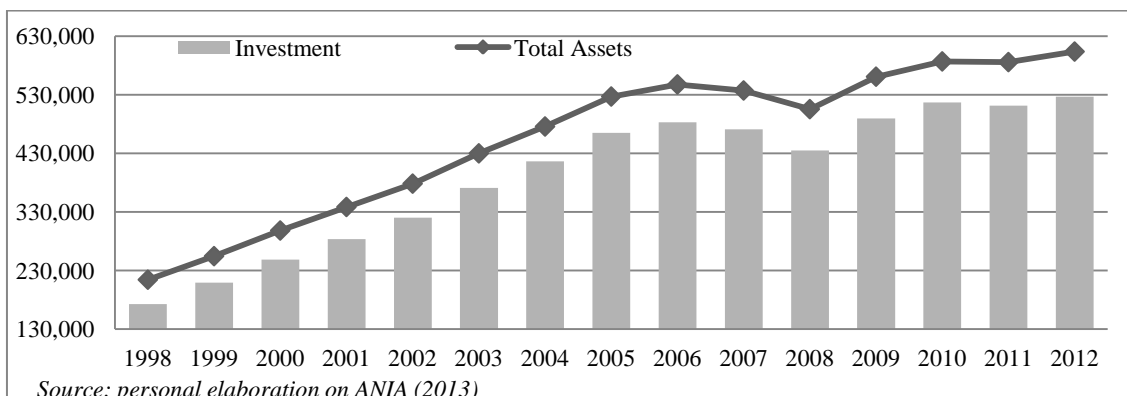


Figure 3. Total Italian Insurers' Investment Portfolio (€m)

This means that the dynamics of total assets significantly reflect the dynamics of total investments (in

other words, the other items of assets assume a secondary character) which, in turn, reflect the dynamics of technical provisions, i.e. of commitments assumed towards insureds in force at the end of the year.

In 2012, total investments of Italian insurers represented 87.3% of total book value while, fifteen years ago (in 1998), they represented “only” 80.6%. Therefore, although in absolute terms the other items of assets have increased in amount, their percentage weight has decreased. Therefore, investments reflect the dynamics highlighted previously with regard to considerations on the trend of the book value of total assets.

However, it is interesting, within the category of investments, to distinguish between the part of investments covering commitments under Life contracts from those covering the Non-life segment.

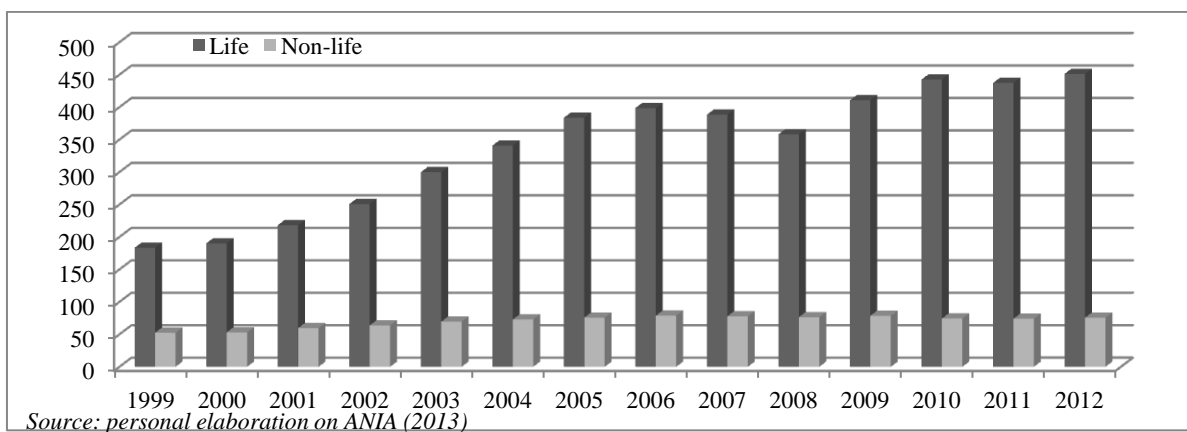


Figure 4. Life vs. non-life insurers' investment portfolio (€b)

Various interesting conclusions can be drawn from the graph of Life and Non-life investments (Processing of ANIA data). Firstly, the growing weight of Life business investments that reflects an expansion of this type of business (in particular in Italy but not only), also spurred by pension system reforms and greater sensitivity to private pension schemes (so-called “second and third pillar”). While, in 1999, the ratio between the Life business and Non-life business investments was equal to 3.5, in the last three years (2010-2012) Life business investments have, on the average, been equal to six times those of Non-life business.

Also, the dynamics of Non-life investments seem to be less accentuated compared with Life business that, apparently, reflects to a greater extent the dynamics highlighted previously with regard to the trend of total assets and GDP. Between 1999 and 2012, Non-life investments increased by 44% compared with an upswing of 146% in Life business. To investigate this latter aspect, it may be interesting to analyse the annual growth rates of investments according to business line.

Figure 5 shows and confirms that the growth rate of Non-life investments is mainly constantly lower than that of Life business, with less marked fluctuations. Therefore, Life business, also presumably due to the different type of investments and time horizon (longer in Life business), is decidedly more



“volatile” compared with the greater stability of other business lines. This is evidently consistent, as already mentioned, also with the specific characteristics and differences between Life and Non-life business, characterised by different time horizons, expected returns and risk profiles.

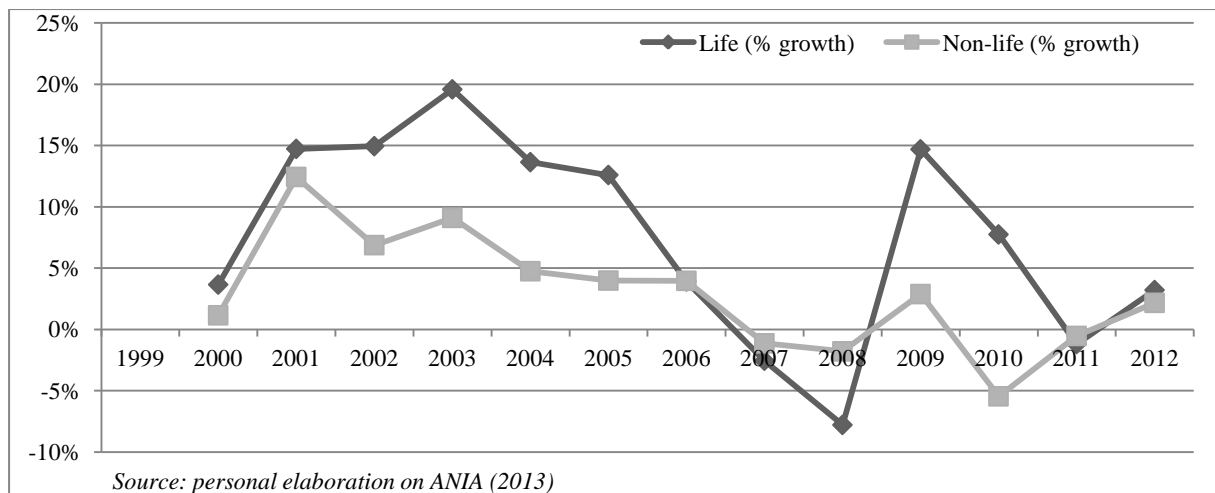


Figure 5. Life and non-life insurers' investment portfolio growth rate

The sharp downswing in 2007 and 2008 was forged by two main causes: the fall in stock markets triggered in the second half of 2007 and the rise in sovereign yields (as is known, as sovereign bond yields increase, the price of the stock decreases).

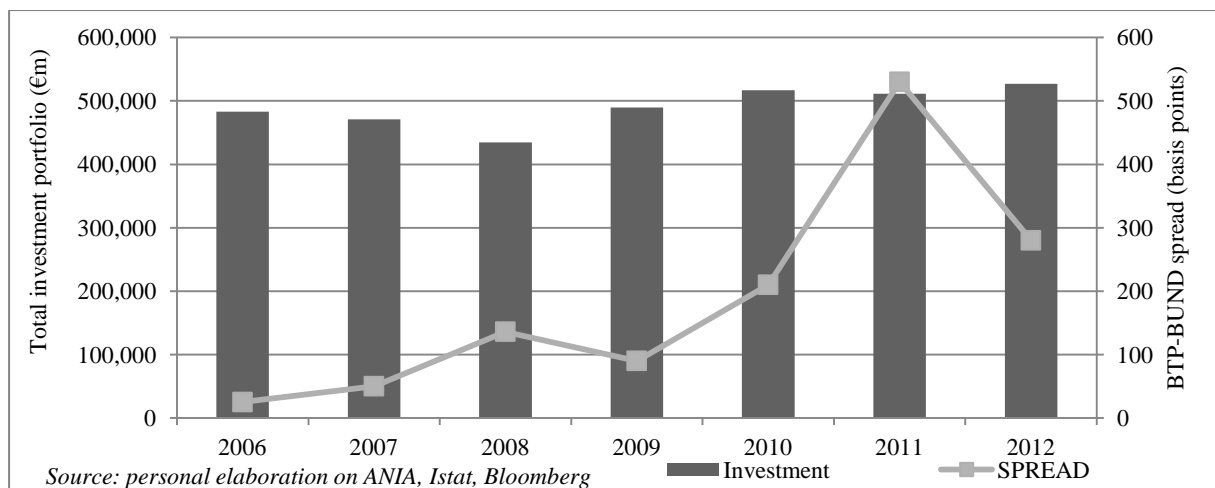


Figure 6. Total Italian insurers' investment portfolio (€m) and BTP-BUND spread (basis points)

To assess the impact of the sovereign debt “crisis”, in particular that of Italy, it may be useful to compare the trend of Italian insurers' investments and that of spread between Italian ten-year BTP and German bunds maturing on the same date. This spread (expressed in basis points) is commonly used to measure market “perception” of the sovereign risk of a country (in our case, Italy). The values indicated in figure 6 refer to the values of BTP-Bund spread at year end. As can be noted, although Italian insurers' investments mainly comprise bonds and fixed-income securities, no significant relationship is revealed (at least by an analysis of this type) between the trend of spread and the total value of

investments. In fact, an increase in spread is accompanied by a decline in value (market price) of Government bonds. A reasonable hypothesis for interpretation (to be verified through more extensive analysis) could be that insurers have increased their purchases in order to “offset” the reduction in the market value of sovereign bonds. In this way, the total value of investments (in Euro) would not have been affected by significant variations.

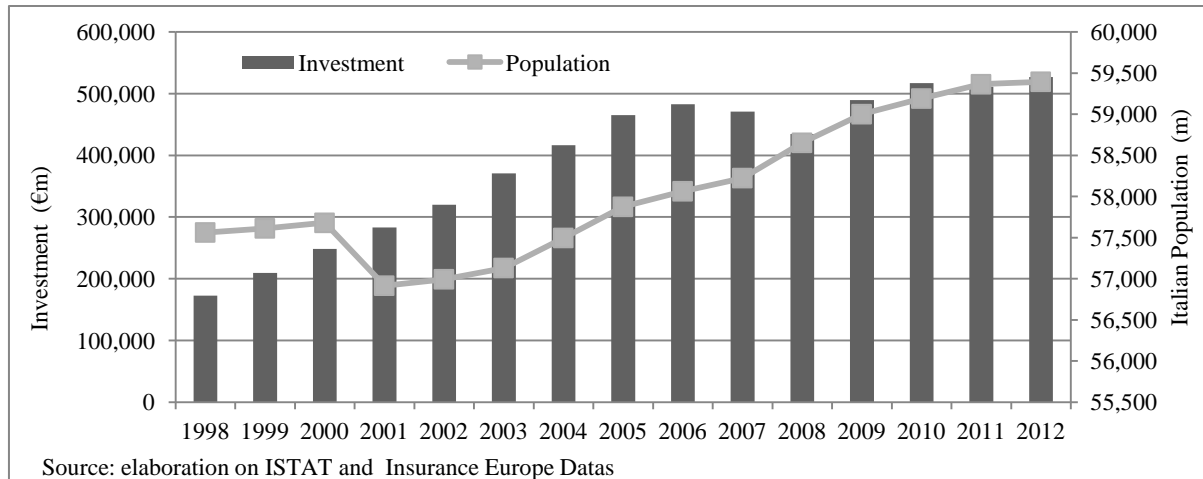


Figure 7. *Total Italian Insurers' investment portfolio (€m) and Italian Population (m)*

Furthermore, there is apparently no significant relationship between the trend of Italian insurers' investments and that of the Italian population (in the graph above, the value of the Italian population refers to December 31 of each year). Although insurance business is correlated with demographic trend (especially as regards Life business but also to a lesser extent for Non-life business), the data, especially in the last ten years, do not, apparently, highlight a particularly evident link. In fact, in the last 12 years, the Italian population has been characterised, substantially, by continuous, constant growth. However, such dynamics, as highlighted previously, are not apparently reflected in insurers' investments.

A further interesting comparison can be made analysing the trend of insurers' investments at European level. According to Insurance Europe data (the European insurance and reinsurance federation) which cover an even longer time frame (20 years, from 1993 to 2012 inclusive), a completely similar trend to that of Italian companies can be observed, leading to two main considerations. The first is that the trend of Italian insurers' investment portfolios is similar and aligned with that of other European companies. The second consideration is that, presumably, the factors that have generated certain dynamics in Italian insurers' investments are the same as those that have determined the same dynamics at European level. In other words, the “causes” of the trends highlighted here cannot be attributed to national dynamics or exclusively to the Italian context, but to an international macroeconomic perspective, of at least European but also reasonably much broader scope.

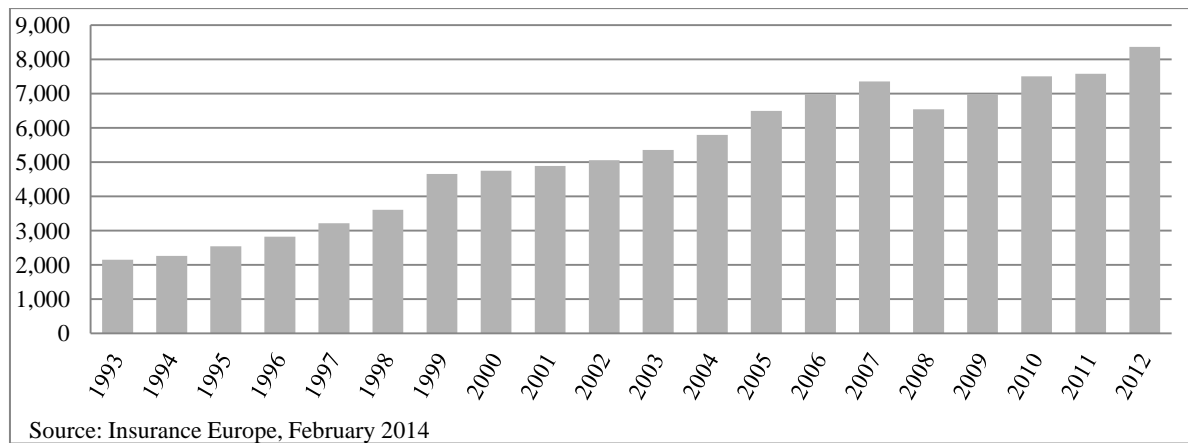


Figure 8. *Total European insurers' investment portfolio (€bm) from 1993 to 2012*

Moving to a further level of detail, the structure of Italian insurers' investment portfolios is analysed. As can be noted, insurers invest the largest proportion of their portfolio in debt securities and other fixed-income securities. This can also be ascribed to the indications and constraints of the Supervisory Authority and application of the principles of healthy, prudent management referred to above. However, certain dynamics, summed up in the figure 9, are particularly interesting especially if analysed in the time series of the period considered.

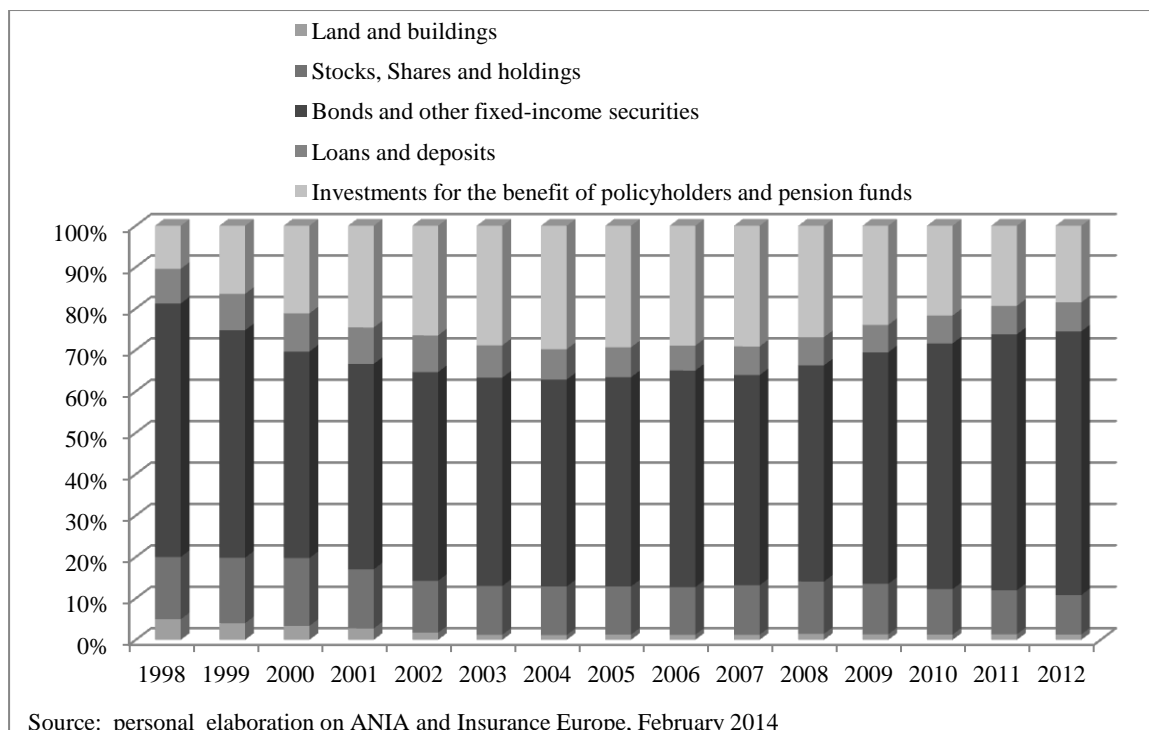


Figure 9. *Structure of Italian insurers' investment portfolios from 1998 to 2012*

An initial significant consideration concerns the percentage decline in the weight of investments in tangible assets in the last fifteen years and, in particular, in the "Land and buildings" category, which have moved from 5% (of total investments) in 1998 to 1.3% in 2012. This item comprises land and buildings intended for "industrial" use, i.e. in the business of the company, and for residential use (for

use by third parties). Real estate investments (e.g. high class properties for rental) have always been one of the most typical, traditional forms of investment widely used by Italian insurers, as these investments offered various “guarantees” in terms of reduced risk (and in terms of changes in the value of the property and returns). However, the gradual, constant reduction over the fifteen years considered is only in relative terms. The absolute trend of the book value of “Land and buildings” is more specific and is shown in Figure 10.

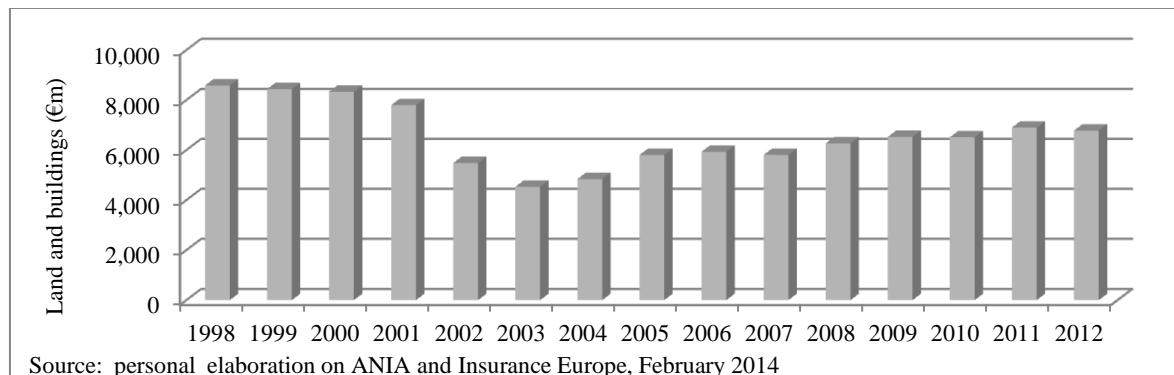


Figure 10. *Land and buildings (€m)*

In the last fifteen years, the minimum value was recorded in 2003, also in line with the trend of the real estate market. However, in 2012, in absolute terms, this item remained at a value around 20% lower than the maximum of 1998.

However, the most significant item of Italian insurers' investments in percentage terms is “Bonds and other fixed-income securities” which, in 2012, accounted for more than 60% of total investments. The percentage weight of this item has varied with a very different trend from that of “Land and buildings” and, as can be observed in the graph below, has been antithetical to that of stocks and shares. In fact, it can be noted that when the percentage of fixed-income securities in the portfolio decreases, that of full risk securities increases and vice versa. In the three-year period 1998-2000, the percentage of bonds in insurance portfolios has decreased, presumably due to expansion of equity markets and an increase in stock exchange prices. Vice versa, between 2001 and 2003, when the net economy and “dot-coms” bubble burst, the percentage weight of shares decreased, accompanied by an increase in that of fixed-income securities. From 2007 onwards, with the financial and economic crisis, the percentage of bonds increased once again. Evidently, this percentage is affected by two factors: not only the “quantity” of securities present in the portfolios of Italian insurers but also the change in their prices, in particular end of period “write-downs” when the impairment in value is considered permanent.

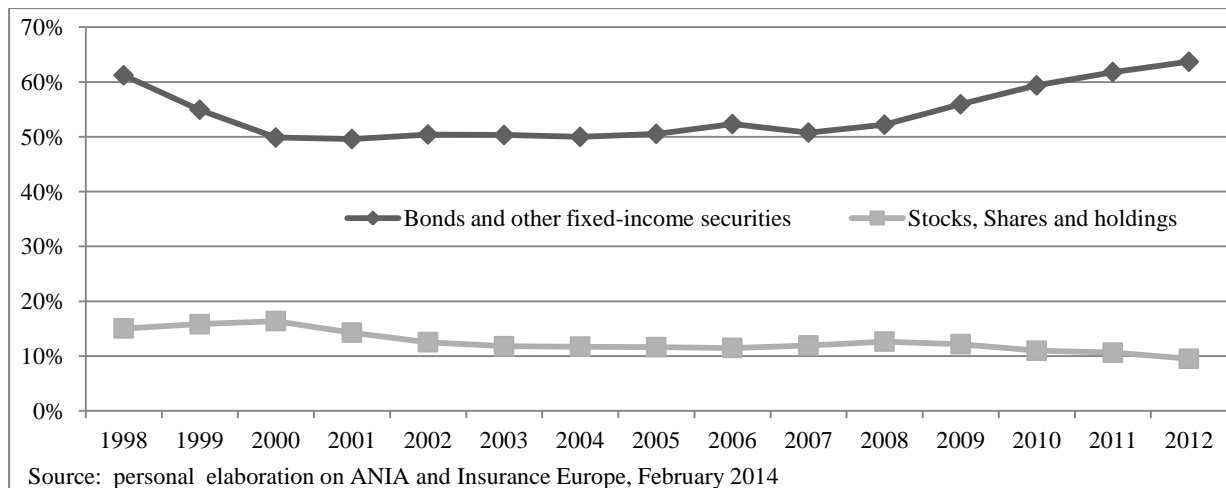


Figure 11. *Investment portfolio percentage composition*

The last item of assets on the balance sheet of Italian insurers examined concerns the reinsurers' share of technical provisions, i.e. the part of technical provisions ceded to reinsurers. In fact, for greater clarity, the gross amounts are stated in technical provisions under liabilities on the balance sheet, recording at the same time the quota of provisions corresponding to reinsurance cessions under assets.

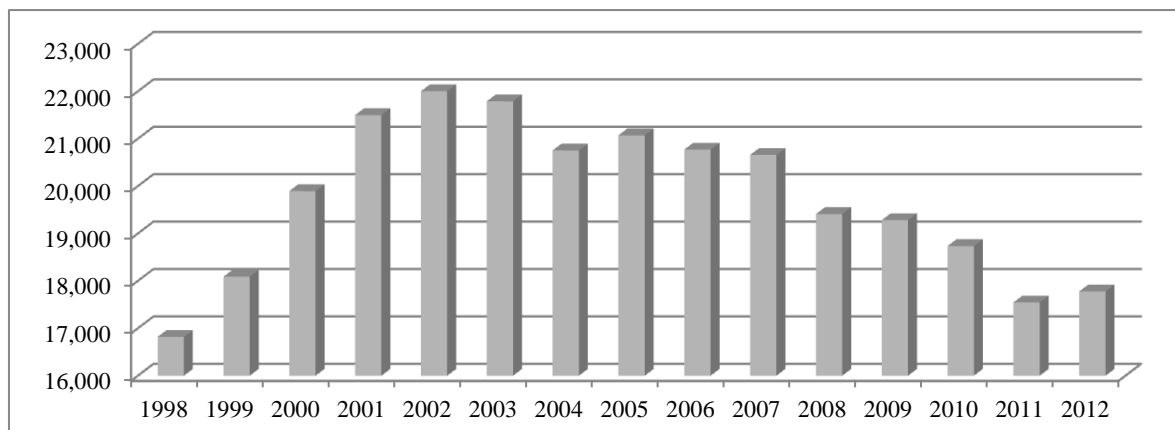


Figure 12. *Technical provisions borne by reinsurers (€m)*

As can be noted from the graph, the trend of reinsurers' share of technical provisions in the fifteen years considered by this study, increased considerably between 1998 and 2002, reaching the maximum value in the entire period considered. A decrease in 2004, followed by a short upswing in 2005, was followed by a tendential decline that resulted, in 2011, in a level lower than that of 1999.

Attempting a possible interpretation of this phenomenon, it could be assumed that Italian insurers, in the period of crisis from 2007 onwards, in an attempt to increase their earnings, maintain higher margins of risk inside the company and therefore reduce reinsurance cessions.

## CONCLUSION

Between 1998 and 2012, the Italian insurance industry has shown that a close correlation exists between its firm size proxy and GDP. The period considered, intentionally broad in order to capture medium- and long-term trends, reflects very different, heterogeneous economic situations, ranging from a period of growth to a period of recession induced by the 2007/2008 economic-financial crisis.

Our analysis has revealed that the firm size proxy apparently anticipates the economic trend of GDP by around one year.

This would demonstrate, as opposed to the initial hypothesis, that the Italian insurance market adapts very quickly to the surrounding economic context and even anticipates this. This would indicate that the sector analysed is an important “signpost” factor in anticipating the macroeconomic variables of the rest of the country. This could be explained by the fact that, insofar as an indicator of the global economy, GDP is structurally “slower” in reflecting on-going changes compared with the insurance sector and probably the financial sector in general. This is consistent with theories of rational expectations according to which, in the medium- and long-term at macroeconomic level, the expectations of stakeholders in the economic system tend to be correct. This can also be asserted with regard to the short-term; for this reason, our research considers, as already indicated above, a time horizon of fifteen years that makes it possible to go beyond economic trends.

All the considerations regarding information furnished “a priori” are also confirmed when analysing the growth rate of the book value of assets of the companies of the sample with Italian GDP.

Lastly, a more detailed analysis of the book value of investments in the period considered reveals that these are particularly significant as regards all assets on the insurance balance sheet. Inside the investments category, an analysis has been made of how investments covering Life business exceed those relating to Non-life business, thereby demonstrating the consequent increase in the Life business of insurers. Also, correlating this with the demographic trend of the country, it has been seen that although the business of insurers is correlated with demographic trend, it does not seem to be particularly influenced by this. A reduction, in particular in percentage terms, in investments in tangible assets in the investment portfolio can be noted in the years considered.

The last consideration concerns the reinsurers’ share of technical provisions that increased until 2002 and then declined constantly. Our interpretation of this phenomenon is that the crisis that occurred in these years induced insurers, in order to increase their earnings, to maintain increasingly higher portions of risk inside the company, ceding increasingly fewer risks to reinsurers.

The limitations of this research include, on the one hand, the need to verify impact on the entire financial sector, extending this at least to the banking sector while, on the other, it would be extremely

useful to compare the Italian situation with that of other countries in and outside the Euro zone in order to verify similarities and differences.

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## SERVICE QUALITY ASYMMETRIC EFFECT ON PATIENT SATISFACTION FOR PRIMARY HEALTHCARE SERVICES

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### ABSTRACT

Primary health care services delivery and its effects on patient satisfaction are very important for healthcare managers as it affects healthcare results and organizations operational expenses' management. Patient satisfaction is typically view it as a multidimensional construct. The purpose of this study is to exploit the theoretical frameworks of three-factor theory in order to identify the service delivery factors affecting patient satisfaction formation and to investigate whether there is an asymmetric service quality-satisfaction relationship. Regression analysis with dummy variables was used to analyze the responses of 407 primary healthcare services' users, which were collected via personal interviews using a properly designed questionnaire. The results showed empirical support to the three-factor theory in the context of primary health care services by confirming the asymmetric relationship between service delivery performance assessment and patient satisfaction. Implications for practice and directions for future research are then discussed.

**Keywords:** *Patient satisfaction, service quality, three-factor theory, service process evaluation, primary healthcare services*

### INTRODUCTION

One of the major tasks of health care managers is to continuously improve the effectiveness of the health care services in order to increase users' satisfaction and loyalty, since this objective influences health care outcomes and contributes to institutions accountability's demonstration (Raposo et al., 2009). A satisfied patient is more inclined to follow doctor's prescription, which in turn will affect patients' satisfaction with the service outcome (e.g. symptoms relief) (MAcStravic, 1991), avoids complaining and lawsuits (Ahorony and Strasser, 1993) is more loyal to and provides positive referrals about the service provider (Mekoth et al., 2011; Chang et al., 2013). On the other side, there is a connection between patient satisfaction and staff satisfaction (Welch, 2010). The assessment of

satisfaction with healthcare services is dynamic and multidisciplinary process (Lovato et al., 2013) and is considered as the most important factor for healthcare systems' planning and effectiveness assessment (Dzomeku et al., 2011; Bhattacharyya et al., 2013).

Primary health care is a major element of any health care system (Raposo et al., 2009), since it brings healthcare closer to citizens' place of residence and work, operating as their first level of contact with health care system (Cueto, 2004, Souliotis and Lionis, 2003). According to Noula et al. (2007), primary health care in Greece is still underperforming. Despite the efforts that have been undertaken over the last decade, the effectiveness of the systems needs to be improved by upgrading the relevant services offered, especially at a regional level. This pressure for improvement is further enhanced by the increase of primary health care services' demand as a result of the bad economic conditions of Greece during the last five years (Benos and Kondilis, 2012).

So in order for the state to plan and deliver better primary health care services, it is fundamental to identify and assess the service factors that their improvement will lead to patient satisfaction. The knowledge of these parameters will be valuable for managers in order to conduct the appropriate modifications that will positively affect system's effectiveness.

Many previous research efforts, regarding the relation between attribute-level performance and patient satisfaction, argue that service quality attributes have a symmetric influence on patient satisfaction, meaning that the effects of service quality deterioration on dissatisfaction will be the same with the relevant effect on satisfaction caused by an equal increase in service quality (Andaleeb, 2001; Choi et al., 2005; Raposo et al., 2011; Mekoth et al., 2011; Mehta, 2011). In this modeling framework, service improvements prioritization, based on the "voice of the customer", is performed with the use of "importance-performance analysis" IPA (Marttila and James, 1977). In a typical IPA, managerial decisions are based on the attributes' position on a two-dimensional grid in which the two axes depict the scores of attributes importance and performance as assessed by system users.

However, numerous studies on the determinants of customer satisfaction reveal that the relationship between attribute-level performance and customer satisfaction can be asymmetric, meaning that the importance of satisfaction determinants may vary, depending on their current level of attribute-performance (Mittal et al., 1998; Matzler and Renzl, 2007; Miculic and Prebezac, 2008). In such a case, many researchers have shown that the results of IPA may be misleading (Matzler and Renzl, 2007; Miculic and Prebežac, 2008; Tsirintani et al. 2010).

The purpose of this paper is to address this shortcoming of IPA, as a tool for primary health care systems improvement, by implementing the "penalty-reward-contrast analysis" (PRCA), a method for primary healthcare services attributes categorization, proposed by Matzler and Renzl (2007) and Miculic and Prebezac (2008), which is based on the nature of their relationship with patient

satisfaction. Moreover, the results of the two analyses are compared and discussion of findings is presented, followed by research and managerial implications, research limitations and directions for further research.

## LITERATURE REVIEW

### *Patient satisfaction*

There are several approaches in defining patient satisfaction. For some researchers patient's satisfaction is defined as the gap between expected and perceived characteristics of a service (Fitzpatrick and Hopkins 1983), while for others patient's satisfaction is a special form of attitude, reflecting the extent to which a patient liked or disliked the service after having experienced it (Woodside et al., 1989). For John (1991), patients' satisfaction concept includes both approaches. In this way, patients' satisfaction can be viewed as an attitude resulting from the confirmation or disconfirmation of expectations (result perspective) or as a process, resulting from the level of expectations the patient takes to the service experience (process perspective). Thus, it is not only important to know the result from the service experience, but also what are the causes and dimensions that give rise to satisfaction.

The most recent models of customer's satisfaction consider satisfaction as an enlarged process or an interaction system around purchase, use and repurchase acts. A working definition of patient satisfaction, proposed by Welch (2010) and Sun et al. (2001), includes the following: 1) overall satisfaction, and 2) behavioral intentions reflecting patients' likelihood to recommend their service provider and their willingness to return. Indeed, these 3 overall measures abound in the literature as practical indicators of patient satisfaction. This new perspective recognizes that the customer psychological reaction to a service cannot be represented as the result of one only episode, but as a series of activities and continuous reactions along time. In this way, the aggregation of individuals, occasions, stimuli and measurements is a good way to surpass some of the problems related to traditional analysis (Johnson 1995; Johnson et al., 1995).

### *Primary healthcare system service attributes*

Researchers agree that perceived service quality is an attitude towards or a global judgment about the superiority or inferiority of a service (Grönroos, 1990; Cronin and Taylor, 1992; Parasuraman et al., 1988). Moreover, Berry et al. (1988) argue that service quality is a great differentiator and the most powerful competitive weapon of service organizations.

In health care services provision in particular, Donabedian (1980) argues that service quality assessment should include an analysis of the structure to achieve a given level of healthcare quality (the characteristics of doctors, hospitals and staff); of the process (interaction with the structure) and of the result (what happens to the patient after the medical act). Considering the combined effects of the structure and process elements of health care services, Carr-Hill (1992) found that patient's satisfaction is mainly affected by six dimensions including medical care and information, food and physical facilities, non-tangible environment, nursing care, quantity of food and appointment bookings.

With regards to the result dimension of healthcare services provisioning, though it is considered as the most important element for patients (Mummalaneni and Gopalakrishna (1995), it is not very well studied and this is attributed to its measurement difficulty caused by the very large period of time between the moment when service is provided and the results' revealing (Choi et al., 2005). Moreover, Boller et al. (2003) consider the result of healthcare services is a consequence of the service's quality and not one of its components, stressing the importance to focus on the structure and the process when analyzing service quality in health care services. Finally, Peyrot et al. (1993) argue that it is possible to improve patients' satisfaction through the improvement of aspects that are not related to the service's outcome quality, but, through aspects related to process quality.

For primary health care services Bryant et al. (1998) suggest that the main aspects of service quality assessment include socio-emotional variables, referring to the perceptions that patients have about the communication and interpersonal capacities of healthcare services (affection, empathy, politeness); system variables, referring to the physical or technical aspects of the local in which the service is provided, such as, the waiting time for the appointment, access to services, technical quality of services, costs, comfort of equipment and the appointment's duration; influential variables, such as, list of contacts (family and friends); and moderating variables, referring to socio-demographic variables and state of health.

#### *On the nature of the relationship between service quality and patient satisfaction*

The majority of empirical studies consistently suggest that service quality is an antecedent of satisfaction. The theoretical support is based on the attitudinal framework, developed by Bagozzi (1992), which suggests that customers first evaluate a service cognitively (service quality assessment), and then they react emotionally to this appraisal (satisfaction). Most previous studies consider that the relationship among service quality of health care and patient satisfaction is linear and symmetric (Andaleeb, 2001; Choi et al., 2005; Raposo et al., 2009; Mekoth et al., 2011; Zamil et al., 2012). The result of the relationship identification among service quality attributes and patient satisfaction is the importance of service attributes in determining patient satisfaction which along with service

attributes-performance are used for conducting the importance-performance analysis (IPA) (Martilla and James, 1977). IPA assumes that attribute's performance and importance are independent variables and the relationship between service-attributes' performance and patient satisfaction is linear (Deng, 2007). Kano et al. (1984) were the first who classified products/services attributes by considering their potentiality in creating customer satisfaction. The three-factor theory, proposed by Kano et al. (1984) presumes that the effect of a product/service attribute on customer satisfaction varies according to its performance. This fact signifies the existence of asymmetric relationships among service-attributes and overall satisfaction. In the customer satisfaction context, service attributes are characterized as being (Matzler et al., 2004):

Basic: they reflect the minimum requirements that service providers have to offer to the customers. They may cause dissatisfaction, if they are not offered, but do create high satisfaction, if they are not offered. When performance of the basic factors is low, their influence on satisfaction becomes very important, while when their performance is high, their influence on satisfaction decreases and become unimportant.

Performance: they produce high customer satisfaction when they are offered, but they may also produce dissatisfaction, if they are not offered. The effect on overall satisfaction is linear and symmetric.

Excitement: they reflected unexpected aspects of services offered given that their existence may produce high customer satisfaction, but their absence does not create dissatisfaction. The importance of the excitement factors increases when their performances are high, but they become unimportant when they underperform.

Penalty-rewards-contrast analysis (PRCA) is commonly used for service attributes classification as basic, performance and excitement factors according to their asymmetric influence on overall satisfaction (Busaca and Padula, 2005). In the context of primary health care services, the studies that use the three-factor theory of patient satisfaction are scarce. This study is trying to fill this gap in order to achieve its objective to provide an alternative for service improvement planning.

## RESEARCH METHODOLOGY

### *Sample and data collection*

The target population of this study was users of primary healthcare services who visited the outpatient departments of public hospitals in the district of Athens. Eight hospitals were selected for data collection. Four of them were specific disease hospitals and the others were general hospitals. A stratified random sampling was utilized with a sampling ratio of 1:5 meaning that for every five patients that got out of the clinics one was interviewed. 700 questionnaires were distributed (650 in

morning clinics and 150 in afternoon clinics). The fieldwork was conducted during April and May 2013. Contacts were made at different times of the day and days of the week in order for day and time related bias to be eliminated. The procedure resulted in 420 filled questionnaires of which 407 usable questionnaires were coded for data analysis, yielding a net response rate of about 58%. Using the Armstrong and Overton (1997) procedure, nonresponse bias was evaluated by comparing early respondents with late respondents for all constructs considered in this study. No significant differences were recorded at the 0.050 level of significance.

In relation to gender, 57.3 % of the respondents were female. In relation to age, 14% of respondents were in the 18-24 age-group; 19% in the 25-34 age-group; 19% in the 35-44 age-group; 20% in the 45-54 age-group; 13% in the 55-64 age-group; and 13% were above 65 years old. 3% of the respondents failed to report their age. 54% of the respondents were married and 29% were single. In terms of monthly income, 33% of the respondents' monthly salary is less than €1,000; 19% gets between €1,000 and €2,000; and 6% gets more than €2,000. 33% of the respondents failed to report their monthly income. In terms of educational background, 34% of respondents have a university degree. Finally, 56% of the respondents have visited primary health care services less than 6 time during the last twelve months; 13% between six and twenty times and 3% more than twenty times. 18% of the respondents failed to report services' usage frequency.

#### *Measures and survey instrument design*

Data were collected through a questionnaire developed to understand patients' perception about primary healthcare service quality. The questionnaire was divided in five sections: the first addressing general information about respondents' demographics and primary health care usage pattern (frequency and motives). The next four sections addressed specific questions about patients' perception on hospital's facilities condition, administrative processes, medical and nursing care. The scales used to measure the four primary healthcare service attributes were adopted from the studies of Dagger et al., (2007) and Raposo et al. (2009). The scale proposed by Oliver (1980) was used to measure patient satisfaction reflecting overall satisfaction, expectations disconfirmation and needs disconfirmation. All items were measured on 5-point Likert scales anchored at 1 (strongly disagree) and 5 (strongly agree).

#### *Data analysis methods*

Firstly, exploratory Factor Analysis (EFA) was conducted for the items of primary healthcare service attributes and patient satisfaction. The purpose of this analysis was to reduce all items to a smaller and

manageable set of variables (Malhotra, 2010). Secondly, IPA was employed to identify prior areas of recourse allocation aiming to increase patients' satisfaction by using the service attributes importance and performance means. Finally, PRCA was used to classify primary healthcare service attributes according to their asymmetric influences on patient satisfaction.

## RESULTS

### *Exploratory factor analysis*

Table 1 show EFA results (i.e. rotated components matrix) for items measuring primary healthcare service attributes and patient satisfaction. The Kaiser-Meyer-Olkin (KMO) measure of sampling adequacy is an index used to examine the appropriateness of factor analysis. The value of KMO statistic for this study is 0.95 which shows that the factor analysis is appropriate. Based on the eigenvalue criterion the analysis revealed the existence of five factors, namely Nursing Care (NC); Facilities Condition (FC); Medical Care (MC); Administrative Services (AS); and Patient Satisfaction (PS). The percentages of total variance attributed to each factor are 46.34%, 10.35%, 5.92%, 5.08% and 3.23% respectively. The total variance explained is 70.93%, well above the proposed cut-off value of 50% (Malhotra, 2010). Internal consistency; convergent validity and discriminant validity estimations were used to test the strength of the proposed measures. All factor loadings are greater than 0.55 implying significant constructs' convergent validity. Constructs' discriminant validity is also confirmed, since there are no items strongly loading ( $> 0.4$ ) on two or more factors. Finally, a reliability test was conducted for each component by calculating Cronbach's alpha. All relevant values range between 0.77 and 0.96 ( $> 0.7$ ) which means that the internal consistency of the items in the new scales is very good (Tabachnick and Fidell, 2007).

### *Importance-Performance Analysis*

For performing IPA, performance and importance means of each service quality dimension were calculated. The means were employed for positioning the attributes on the IP matrix. In the current study, the implicit importance of the four service attributes was calculated using a linear regression model expressing their symmetric impact on patient satisfaction. Performance means for each service attributes are provided in Table 1 and the implicit importance of the four service-attributes determining patient satisfaction are given in Table 2.

Items	F1	F2	F3	F4	F5	MV	SD
MC1 time spend with the patient	0,27	0,22	<b>0,68</b>	0,21	0,08	3.69	0.88
MC2 accurate info about illness	0,18	0,19	<b>0,78</b>	0,20	0,11	3.80	0.90
MC3 medication instructions given	0,19	0,17	<b>0,74</b>	0,14	0,09	3.87	0.91
MC4 lifestyle instructions given	0,25	0,18	<b>0,64</b>	0,15	0,22	3.77	1.01
MC5 kindness	0,25	0,17	<b>0,70</b>	0,29	0,14	3.89	0.93
MC6 communication	0,26	0,21	<b>0,68</b>	0,25	0,17	3.85	0.97
MC7 trustworthiness	0,33	0,19	<b>0,74</b>	0,24	0,08	3.76	1.04
MC8 interest	0,32	0,14	<b>0,73</b>	0,20	0,13	3.86	1.00
NC1 willingness to serve	<b>0,80</b>	0,16	0,28	0,17	0,07	3.49	0.98
NC2 family support given	<b>0,81</b>	0,16	0,25	0,17	0,09	3.52	1.00
NC3 kindness	<b>0,83</b>	0,17	0,24	0,15	0,13	3.48	1.03
NC4 communication	<b>0,86</b>	0,14	0,21	0,15	0,12	3.41	1.08
NC5 trustworthiness	<b>0,72</b>	0,18	0,28	0,20	0,15	3.34	1.08
NC6 personal support given	<b>0,85</b>	0,14	0,22	0,18	0,07	3.35	1.06
NC7 service speed	<b>0,83</b>	0,08	0,21	0,17	0,10	3.34	1.04
NC8 interest	<b>0,86</b>	0,12	0,20	0,16	0,11	3.37	1.04
AS1 admittance procedures	0,13	0,25	0,13	<b>0,78</b>	-0,03	3.28	1.02
AS2 discharge procedures	0,09	0,26	0,25	<b>0,73</b>	0,09	3.42	0.95
AS3 staff's service speed	0,22	0,26	0,17	<b>0,74</b>	0,14	3.25	1.01
AS4 staff's behavior	0,16	0,21	0,29	<b>0,75</b>	0,15	3.41	0.98
AS5 waiting time	0,22	0,29	0,21	<b>0,73</b>	0,08	2.98	1.10
AS6 consistency	0,26	0,23	0,28	<b>0,56</b>	0,27	3.17	1.09
AS7 interest	0,25	0,31	0,25	<b>0,65</b>	0,19	3.21	0.99
AS8 communication	0,25	0,30	0,21	<b>0,64</b>	0,20	3.30	0.98
FC1 premises cleanliness	0,21	<b>0,79</b>	0,17	0,17	0,23	3.46	1.10
FC2 toilet cleanliness	0,17	<b>0,78</b>	0,11	0,17	0,14	3.17	1.20
FC3 waiting areas' comfort	0,12	<b>0,84</b>	0,21	0,21	0,10	3.28	1.14
FC4 premises adequacy	0,09	<b>0,83</b>	0,18	0,21	0,04	3.31	1.12
FC5 room temperature	0,12	<b>0,77</b>	0,18	0,27	-0,02	3.55	1.00
FC6 access for people with disabilities	0,15	<b>0,71</b>	0,18	0,27	0,08	3.41	1.08
FC7 signing	0,13	<b>0,69</b>	0,13	0,28	0,16	3.67	1.08
FC8 operation time comfort	0,15	<b>0,55</b>	0,30	0,30	0,16	3.36	1.05
PS1 general satisfaction	0,24	0,30	0,30	0,22	<b>0,70</b>	3,37	1,10
PS2 expectations matching	0,31	0,32	0,31	0,18	<b>0,68</b>	3,35	1,16
PS3 needs fulfilment	0,11	0,10	0,15	0,18	<b>0,70</b>	2,77	1,41
Eigenvalues	16,22	3,62	2,07	1,78	1,13		
Variance explained (%)	46,34	10,35	5,92	5,08	3,23		
Cumulative variance (%)	46,34	56,69	62,62	67,70	70,93		
Cronbach's alpha	0,96	0,93	0,93	0,93	0,77		
Factor MV	3.41	3.40	3.81	3.25	3.55		

Notes: F1-Nursing Care; F2-Facilities Condition; F3-Medical Care; F4-Administrative Services; MV-mean value; SD-standard deviation

Table 1: Factor analysis results for primary health care service attributes

Regression analysis results revealed all service attributes significantly affect patient satisfaction, explaining 46.2% of variance in patient satisfaction and that Medical Care is the most important



service quality attribute, followed by Facilities Conditions, Nursing Care and Administrative Services. The grand means of implicit importance and service attributes performance separate the matrix into four quadrants as illustrated in Figure 1. IPA matrix shows that Medical Care is a “keep-up the good work” attribute, meaning that is highly important for the customers and performs highly. Nursing Care and Administrative Services are “low-priority” attributes. These attributes were not considered as important as other attributes by patients, while their performance were perceived relatively lower than others. Finally, Facilities Condition is characterized as “concentrate here” attribute. Service providers have to particularly focus on the improvement of this attribute in order to increase patient satisfaction.

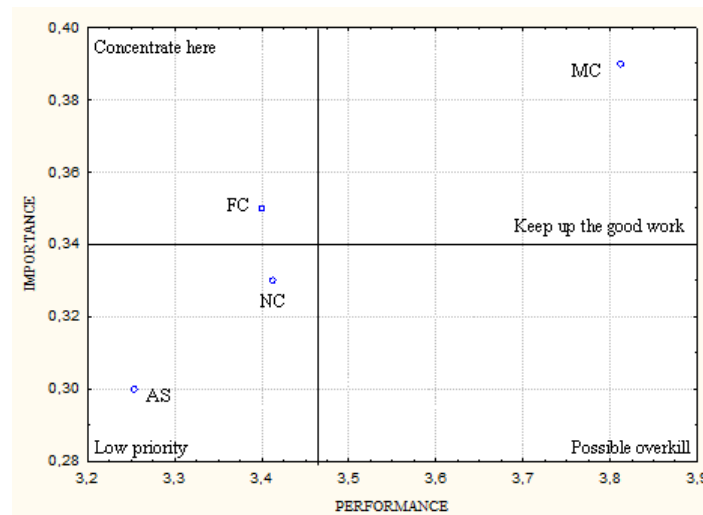


Figure 1: Importance-performance analysis (IPA) for patient satisfaction

#### *Penalty-reward contrast analysis*

PRCA uses dummy variables to test the asymmetric relationships among service quality attributes performance and patient satisfaction in order to classify the service attributes in categories provided by the three-factor theory (Matzler et al., 2006). Thus factor scores, obtained from the exploratory factor analysis, in the lower quartile were used to form one dummy variable to quantify the influence of the attributes when satisfaction is low. In the same way, the factor score in the upper quartile were used to quantify the impact of the attributes in case of high satisfaction. Based on this recoding, a multiple regression was conducted with these dummy variables. Thus for each attributes two regression coefficients are obtained: one indicating attributes' impact on patient satisfaction when its performance is high; and the other indicating attributes' impact on patient satisfaction when its performance is low. The results of PRCA are given in Table 2 and illustrated in Figure 2.

The dummy regression model was statistically significant ( $F = 43.39$ ,  $p = 0.00$ ), explaining 45.5% of variance in patient satisfaction. The analysis indicated that all dummy variables' coefficients have the

right sign and they are significantly affect patient satisfaction at the 0.05 level of significance. T-test was used to test the equality of penalty and reward indices for all service performance attributes. The results of t-tests indicated that the null hypothesis ( $\beta_{j+} = \beta_{j-}$ ) can be rejected for Medical Care ( $p=0.000$ ); Nursing Care ( $p=0.001$ ); and Administrative Services ( $p=0.019$ ) and can be accepted for Facilities Conditions ( $p=0.186$ ), meaning that there was an asymmetric relationship among primary healthcare service performance and patient satisfaction for three out of four service attributes.

PHCSQ factors	Regression coefficients <sup>a</sup>	Dummy variable regression coefficients <sup>b</sup>			Factors classification
		Reward indices	Penalty indices	Parameters equality test t-value	
Nursing Care	0.33***	0.25***	-0.14***	3.17***	Excitement
Facilities	0.35***	0.18***	-0.23***	0.89(ns)	Performance
Medical Care	0.39***	0.31***	-0.15***	3.95***	Excitement
Administrative Services	0.30***	0.12*	-0.24***	2.08***	Basic
F	88.33***	43.39***			
R <sup>2</sup>	0.462	0.455			

Notes: All regression coefficients are standardized coefficients

<sup>a</sup> symmetric influences of service quality attributes

<sup>b</sup> asymmetric influences of service quality attributes

\*  $p < 0.1$

\*\*  $p < 0.05$

\*\*\*  $p < 0.001$

Table 2: Relationship between service quality attributes and patient satisfaction

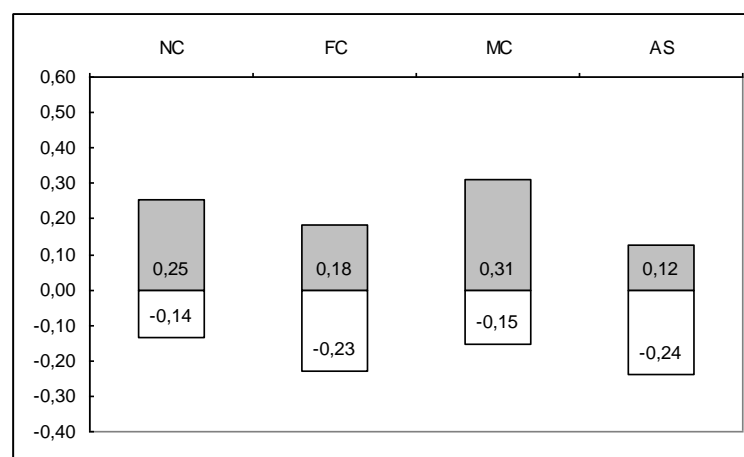


Figure 2: Penalty-reward-contrast-analysis for patient satisfaction

More specifically, Administrative Services are classified as basic factor, because its relevant penalty index is higher than its reward index. Thus, increasing their performance above expectations is not

going to increase patient satisfaction, since it establishes “a market entry threshold”. Facilities Condition is classified as performance factor. That factor relates to patient satisfaction if its performance is high and may produce dissatisfaction when underperforms. Finally, Medical and Nursing Care are classified as excitement factors, because their penalty indices are much lower than their respective reward indices. Therefore, the way for primary healthcare services efficiency improvement is to increase patient satisfaction by improving the provided medical and nursing care.

## DISCUSSION AND CONCLUSIONS

Knowing the primary healthcare service attributes’ characteristics is very important for researchers and practitioners, since their importance can be used for actions prioritization towards patient satisfaction increase and system’s effectiveness improvement. Therefore, in this research study, the symmetric and asymmetric effects of primary healthcare attributes on patient satisfaction, through PRCA, are investigated.

The IPA findings, resulted from the linear symmetric relationship among four service attribute performance and patient satisfaction, suggested that Administrative Services and Nursing Care are classified as “low priority” service attributes; Medical Care as a “keep up the good work” attribute and only Facilities Condition was identified as a “needs improvement” attribute.

As far as the Administrative Services and Facilities Condition performances are concerned, the results of IPA and PRCA coincide. More specifically, the Administrative Services is a basic factor and as such low priority should be given to them, since any improvement of its performance will not increase patient satisfaction, whereas the current performance level’s retention is perceived as adequate by system’s users. On the other side, Facilities’ condition is a performance factor and as such the improvement of its performance will positively affect patient satisfaction while its performance reduction will deteriorate patient satisfaction. However, the results of IPA and PRCA with respect to Medical and Nursing Care diverge. These two attributes were found to be excitement factors and as such they have the power to affect patient satisfaction only in case of performing above patients’ expectations.

In summary, the results of this study signal the importance of identifying the performance and excitement factors of primary healthcare services, because high patient satisfaction can be achieved by paying particular attention to these factors. Based on the results of the PRCA, the highest priority should be given to the improvement of Medical and Nursing Care and then to the improvement of Facilities condition. Finally the retention of Administrative Services’ current level of performance should be the target of healthcare managers since only its performance decrease will negatively affect patient satisfaction.

Many previous studies have confirmed the patient-physician relationship as the most important indicator of patient satisfaction. Patients feel more satisfied when they have confidence to the doctor and they have established a constant communication with him (Ali and Ndubisi, 2011). The new finding, that needs to be further investigated, is the role of nurses in the relationship between primary healthcare service's providers and patients. This study, in accordance with the findings of Scardina (1994), highlights the importance for service providers to invest in the nursing personnel's development, in order to take advantage of the fact that nurses are much closer to the patient, than other members of the staff, and they can easier establish relationships with them.

This study has some limitations that should be considered when interpreting its findings. First, the findings and the implications of this research were obtained using a cross-sectional study. This reduces the ability of the study to reflect the temporal changes in the research constructs. Second, the relationships among primary healthcare service attributes and patient satisfaction were validated with data from one country. Performing the study across different countries would provide evidence about the generalizability of the service quality dimensions and the robustness of the relationships among the constructs determining patient satisfaction.

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## DOES THE GERMAN SCHOOL SYSTEM PREPARE FOR CULTURALLY SENSITIVE MANAGERS?

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### ABSTRACT

**Purpose:** Literature shows abundant evidence that the country of upbringing does influence a child's perception on cultural issues and will hitherto also influence its intercultural competences. Schooling also has an important impact on cross-cultural competences since it is in school where pupils deepen their knowledge of culturally acceptable behavior. In Europe, school systems still differ widely. The research focuses on how the German school system influences German managers – and here especially their leadership styles – working in a French environment.

**Design / Methodology / Approach:** The exploratory study relies on an in-depth interviewing. Five in-depth case studies of German managers working in French companies were conducted.

**Findings:** Results indicate that their schooling in Germany did influence their leadership style and management preferences. However they needed to adapt upon start of their career in France.

**Research limitations / Implications:** The study was limited to a small sample of managers employed in different industries in France. It would be interesting to increase the sample size as well as the industry coverage in order to test generalizability of the study.

**Social and practical implications:** The study showed that the five interviewed German managers could successfully adapt to French reality, accept differences and use them in their favor due to the values they learned at school. They brought from the German school system appropriate language skills combined with tolerance for other cultures. However they missed acceptance for authority, competitive spirit and flexibility towards time. Also they had to learn at the working place how to express things on a moderate and diplomatic way, avoiding any open criticism.

**Keywords:** *Intercultural Competence, Germany, France, School system, Leadership*

## INTRODUCTION

France is Germany's closest and most important partner in Europe. With no other country does it coordinate all its policies more extensively or regularly (Trouille, 2013). However the cultural differences between France and Germany remain significant (Strübing, 1997). A main cause can be found in the values which are taught in the family and at school. The school systems differ substantially between France and Germany (Hans, 2012). The goal of this paper is to analyze how German managers are affected through the values they learned at school when working in France. This paper is structured as follows:

Firstly based on the literature review, it will be analyzed to which extent the cultural values can be related to the German school system and how the leadership styles depend on national cultures.

Secondly, after having presented the methodology, the results of in-depth interviews with five German managers working in France will show how the values taught at school prepare German managers for working in a French led company.

The results will be finally discussed and recommendations for policy makers and German managers will be given in the last section.

## LITERATURE REVIEW

Germany and France have been growing together even more during the past 50 years and commercial contacts between German and French firms are intense. On the one hand, this leads to more and more German managers working for French companies and having to deal with French subordinates as well as French superiors. On the other hand many German companies depend upon the French market for sales and supplies and have to deal with French suppliers or customers. Since supplier – customer relationships are heavily intertwined German managers should be able to communicate effectively with their French counterparts. This implies not only the ability to master the foreign language but also to understand culturally based behavior.

Literature on the relation between schooling and ability to acquire culturally effective leadership qualities is scarce. This study intends to close the gap. The literature review will therefore first consider works in the field of culture, than studies about education and finally compare leadership style depending on national culture.

One of the first studies in the context of intercultural management has been conducted by Kluckhohn and Strodtbeck (1961). They observed five main value orientations (relationship between human being and nature, attitude towards others, attitude towards time, main characteristics of human nature, preferred mode of activity) that have been extended by other researchers throughout time (e.g. Schein, 1990, Hofstede and Hofstede, 2011, Trompenaars and Hampden-Turner, 2010 or e.g. Hall and Hall,



2007). Schein (1990) extended their research so that his five categories comprise humanity's relationship to nature, the nature of reality and truth, the nature of human nature, the nature of human activity, and the nature of human relationship. Those categories are fundamental to each human being, invisible and unconscious. Children acquire them through acculturation in their own society and do not question them. More visible and interlinking are values, strategies, aims and philosophies. It is here where cultures meet and can be understood (Barmeyer and Maryrhofer, 2008). Several differences between French and German culture can be observed. The French society is predominantly catholic and shaped by Cartesian tradition with regard to the "nature of reality and truth". Descartes is one of the most influential French philosophers and scientists. His classic statement "cogito, ergo sum" (I think, therefore I am) influenced the entire French educational system with the so-called Cartesian doubt - a) accept only things you know to be true, b) dissect the truth into small pieces, c) first solve the easy problems, d) make sure to complete a list of remaining problems. This approach is still taught at school and motivates every French person to question anything unless truth has been proven. In professional life this facilitates a continuous search for new, innovative solutions and established working orders are not necessarily observed (Heidenreich, 1995). It is common understanding that national institutions are responsible for establishing the "truth" (Uterwedde, 2013). This leads to a belief in a hierarchical "nature of human relationships" and a very hierarchical society as measured by Hofstede (2011). The expectations of French employees is that their managers give them clear tasks but also endorse the responsibility, acting as a mentor or father who is going to control and to solve eventual problems (Barmeyer, 2008). Successful French managers put emphasis on a personal relationship with their subordinates rather than concentrating on fact-based management (Höhne, 2012).

Germany's culture on the other way is predominantly based on fact-based management (Uterwedde, 2013). Compared to France, many companies have adopted a more participative management style in the last decades. This fits well to the Lutheran tradition where people are supposed to be self-reliant and cannot be granted any absolution by the institution Church. Thus, the nature of human relationship is not as hierarchical and hierarchies are not as important and not as developed as in France (Barmeyer and Davoine, 2008). In Germany power in corporations tends to be split horizontally between divisions which are then required to cooperate (Barmeyer and Davoine, 2008). The expectations from German employees to their managers is to involve them into all processes, including planning and decision making and to delegate to them a part of the responsibility (management by delegation). Science is rooted in a Humboldt tradition and based on observation of nature and detection of pure facts out of observation ("nature of reality and truth"). Facts play an important role in life and fact-based work is highly valued by Germans (Barmeyer and Davoine, 2008). Therefore, within Germany trust can be built through fact-based communication, since facts form the observed basic

truth. In addition, communication is rather direct and centers on the facts (Lewis, 2005). In professional life this creates a climate where people coming out of different school systems (dual system, higher education, professional colleges) can communicate with one another and status is mainly conferred through expert knowledge, not through prior education (Heidenreich, 1995).

This brings up the first research question:

To which extent are the cultural values described above related to the German school system?

#### *German school system*

After having described certain cultural characteristics, it remains interesting to explore whether or not these issues have been taught at school. The German school system is on the one hand very selective, one other hand very individual. It is selective because at the age of ten (or twelve in some states) children are sorted into three types of secondary schooling. Only the Gymnasium leads to the university entrance exam. In addition, after tenth grade students are tested for their ability to enter university prep phase (Gannon, 2004). Fact is that in Germany the enrollment in tertiary education reaches 44% against 65% in France (World Economic Forum, 2013). In Germany, authority over education has been delegated to the individual states that are solely responsible for schooling. They accommodate differences and develop educational standards through the “Kultusministerkonferenz” (KMK) where education ministers of all 16 states come together. Primary school is four to six years (depends on the state); secondary school is eight or nine years. After twelve or thirteen years of schooling children can obtain the Abitur which is – among other qualifications – the main university entry examination. All states recognize their Abitur. Education frameworks used to be very general and only the so called “PISA shock” increased cooperation in this area (Oberhuemer, 2005). Teaching standards for the main subjects in secondary schooling (German, Math, and Foreign Languages) have been formulated recently, recommendations on values taught in secondary school exist since the 1970s (Kultusministerkonferenz, 2013). Teaching standards for teaching in Math and German (Kultusministerkonferenz, 2004a, Kultusministerkonferenz, 2004b) date from 2004, general guidelines on elementary schooling have been developed in the 1970s (Kultusministerkonferenz, 1996). Taking into account that today’s managers started school prior to 1980 and finished it in the late 1990s they were not yet subject to standardization efforts and have been taught widely differing contents. Still, certain values should have been taught everywhere. For primary schooling, those values are (Kultusministerkonferenz, 1996):

- Foster interest in learning and acquiring knowledge.
- Develop an individual point of view.
- Learn problem solving methods (especially through acquisition of mathematical knowledge).
- Be part of nature and protect it.

- Know your cultural roots but be open to the world.

The values to be conveyed through secondary schooling are (Kultusministerkonferenz, 2013):

- Individual responsibility, formalized in the possibility to select the main subjects that influence final grades and discard subjects that the individual student finds difficult (within certain limits).
- Community thinking epitomized in the many different school systems that achieve federal recognition only through their broad acceptance at the community level.
- Responsibility to sustain society and democracy.
- Acquire and structure knowledge individually.
- Work and communicate in teams.

In addition, pupils are required to have attended classes in at least German, Math, two foreign Languages, History and Religion (or Ethics). Other courses can be selected from the fields of Science, Music, Arts and Sports.

Fuchs, Werner and Wallau (2008) describe a paradox in the German approach to schooling: All federal states curricula emphasize individualization of the curriculum to dedicate time to pupil's involvement as well pupil-teacher dialogue and a very individual approach to different learning abilities. However, in reality the very detailed curricula that dictate learning input leave teacher's limited freedom to achieve these goals.

Taking all this information together, schools stress several aspects of a future manager's life:

- Individualism
- Importance of team work and flat hierarchies (moderate Power distance)
- Ability to structure and plan (high Uncertainty avoidance)
- Learn about the past, sustain the future (Long-term orientation)
- Success / achievement orientation (high Masculinity) through early selection process after elementary school and second selection process after having completed tenth grade.

Therefore, it can be concluded that the main aspects of culture and management culture are taught at school.

This leads to the formulation of the next research question: How does the German schooling and the values taught prepare future managers for working in a French context?

## **METHODOLOGY FOR THE EMPIRICAL WORK**

Given the scarcity of literature on the subject and the exploratory nature of the question, the study relied on a multiple case study approach in order to build a theory. Case studies are ideally suited to answer how and why questions where the investigator has little control over the event and a real world phenomenon is involved (Yin, 2014). It helps to understand the dynamics present in a defined setting

(Eisenhardt, 1989). A total of three German managers with working experience with French were initially chosen and personally interviewed in order to pre-test the interview-guidelines. Interviews lasted between one and two hours. Afterwards, results were analyzed and more restrictive criteria for selecting new interviewees were defined: the respondents needed to be German persons, having gone to school in Germany and living and working as a manager in a French led company for at least three years. The definition of a manager in the study was somebody in the organization who had to report to his hierarchy, and himself has a team under his responsibility.

The interview-guideline was adapted to this new pool and sent to the respondents at least two days in advance in order to give them the time to reflect about the questions. This guideline helped them to gather their thoughts on selected topics, which would then be discussed during the interview. Interviews with all five respondents lasted between one and three hours. Four of the interviewees are working geographically in Paris or Paris vicinity, which is not surprising since most of the well-paid and representative positions in France are located in Paris. One has been seconded from the Paris headquarters of his company to Toulouse. For a summary of the interviewees' characteristics see Table 2.

Respondent	Gender	Age	Area	Degree	Company	Position	Work relation with France	Time spent in France
A	Male	35-44	Toulouse	PhD in Engineering-	Multinational Engineering	Vice President	responsible for contacts to multinational joint-ventures	7 years
B	Female	35-44	Paris	Master in Finance	Bank	Director Marketing	Responsible for marketing campaigns	More than 20 years
C	Male	35-44	Paris	Bachelor Business-Degree and MBA	Telecoms	Director Costing Department	Responsible for reporting and use of pricing systems globally;	5 years
D	Male	45-54	Paris	Business Degree	Construction and Packaging Products	Senior-controller	International controlling	More than 20 years
E	Female	35-44	Paris	University Degree in nutrition science	French Research Institution	Project-Engineer	Research-project	14 years

Table 2. *Summary of Cases*

The interview was split in two parts. It centered on the perceptions about leadership of German leaders working in a French environment and what they observe or assess in their responsibilities in France compared to what they know from Germany. Interviewees were asked to reflect about leadership attributes like intelligence, charisma, communication skills, creativity, commitment, team spirit, leadership style, implication in networks and typical career paths, ability to manage time and work-life balance as suggested by Kouzes et al. (2008). In the second part, respondents were asked to assess what they had been learning in the German school system.

## INTERVIEW FINDINGS AND DISCUSSION

The remarks of the respondents centered foremost on communication skills and emphasized the difficulty of French managers to communicate effectively in English and to implement open criticism. Language plays a crucial part in France as one respondent stated: “it is crucial to express oneself in a moderate, polite and diplomatic way”. The cultural identity depends on how well and fancy you are able to communicate in a language. Since only a minority of French managers is able to speak a foreign language at this very high level, French managers generally avoid speaking English, thus not exercising on a frequent basis and losing even more of their capacity to communicate in English (Wickert, 1992). Moreover, the way French is spoken defines social status. Already in the 18<sup>th</sup> century, French were competing in private and public contests in the Parisians “Salons” to prove their language proficiency. Having charisma and being able to address any audience with the right words and the right tone is an important attribute for a good French manager. This was also observed by the respondents: “French managers can be very passionate and emotional, fighting and competing for their ideas and for more power. They use their networks to get more influence”.

All respondents were able to speak French at a very high level, some of them having not even a foreign accent. So they did not feel like being disadvantaged, especially since they all had the benefit of speaking perfectly at least two further languages, which made them very special in the French business landscape as they discovered: “you have a big asset if you speak several languages”. They noted that this was beneficial from what they learned at school. As they stated, in school they learned to present in front of groups very well and to discuss and present in a foreign language. Within Europe (Germany’s most important sphere of influence), the dominant languages were (and still are) French and English. Thus, in order to educate future managers successfully, German school children were always told the importance of mastering English and French. Given that Germany is a fact-based society, it is more important to get the facts across in any language than to sound beautiful in any language (contrary to the French situation). Here the German school system taught our respondents very beneficial skills. However, the domination of the French language shows the love of French people for persons that

express themselves on a very polite and elaborate level, are ready wit and have repartee. This is one issue, where German school-children surely miss out, since it is not a focus of school teaching as the respondents also noted. Another observation from our respondents was the limitation of French managers to address problems openly. This is directly related to the importance of the personal relationship and the absolute priority to not endanger this relationship: diplomacy is a must, which prevails over telling a potentially disturbing truth: "Open-criticism is a no-go, especially in the group" as one respondent remarked. If you criticize what somebody says, you put the focus on criticizing the person, while the focus will remain on the fact in Germany. It was observed that the French way of arguing is something new to a German: "We have not been extensively trained to debate, to fight for one's point of view or to do lobbying. This is something I really learned when I started to work in France". Also the way to behave in the team and to evaluate conflicts was new to our respondents: "Conflicts between people are a real issue. There is limited willingness to negotiate and to find a consensus. Emotions can be difficult to manage in a team and appear sometimes little professional. There is this national tendency to go into contestation."

The German society is a lesser hierarchical one than the French one, information is a source of knowledge and not of power. Thus, children are taught at school to discuss and argue fact-based, give and accept criticism and go into details which implies that information is given away easily. In order to be successful in a French setting, these characteristics are counter-efficient as one interviewee put it, "you do not share power in France. Competition is very strong at all levels". In addition, as our respondents noted, they did not learn at school to accept the authority of the teacher, which is a must in a hierarchical society. Our respondents stated that in France "if you don't get along with the big boss, you would better switch the position".

The difference in dealing with time has been analyzed by Hall and Trompenaars (Hall and Hall, 2007; Trompenaars and Hampden-Turner, 2010a) and the results of the case studies confirm their theory: French managers are not as good as Germans in being punctual ("the clock does not rule the day in France. There is much more flexibility regarding the behavior to time and to following rules.") Being punctual is not always from benefit as the interviewees commented: "It does not really matter when you get into the office in the morning; however it is expected in most companies that you do not leave before 8 pm". Exercising a tight coordination is also not a strong point of a French manager. They often need pressure to really get involved. French managers can better live with unexpected situations. They like opportunities in order to demonstrate their improvisation skills and their flexibility (Barmeyer, 1996). A French specificity is the so-called 'Systeme D', which is the art of bending rules without breaking them (Trompenaars and Hampden-Turner, 2010a). As our respondents stated, Germans already learn at school very well how to organize themselves and plan their work on their own given

the importance of punctuality in German society. One of them quoted: "We could decide to work overly hard to get finished sooner, or to take less courses in order to be more involved in extra-curriculum activities or to be able to work besides studying. The studies were not squeezed into a strict time framework. We were responsible for managing our time and for our results." However, Germans do not learn to work under pressure the way French people do as was also observed: "Compared to what I experienced when starting to work in France, I remember my studies as with little pressure and competition". Thus, in this case again respondents were confronted with new situations. Our respondents all agreed that "Things in France can work out, even if it first seems it will never work out", "It is amazing to see that things work out and develop well, although you first thought this will never do". Also they stated that "It can be much quicker to get things decided in France since only the top manager needs to be convinced for making a decision". Here, they observed culturally different behavior and judged – given their own acculturation – with surprise that the French behavior is different, but can be as successful as the German one.

Regarding Drive / Passion, French managers can be very passionate and competitive, fighting for their ideas, bringing new alternatives even if the best solution seems to be obvious. "Managers love to not do the obvious, but often choose to go for the more complex, as if they want to prove that they are better and smarter". This spirit for competition is directly related to the French school system which is very selective and puts pupils under pressure from the elementary school upwards. The need for demonstrating a logical, well worded speech is prevalent to the option for agreeing to the best compromise for the group. French have in mind a "win-lose" negotiation scheme, in contrast to the Germans who favor a "win-win" approach. Therefore, it is difficult for French top-managers to be Team-players and to delegate without having the feeling to lose power and authority as was also noted "French top-managers usually are no team-players. They tend to not delegate as extensively as German managers in order to not lose power. Also they do not actively care for conviviality regarding their subordinates. Common social events are rare. They separate quite strictly work and private sphere." All respondents stated that French managers have a very strategically minded way to manage, in contrast to the German way which tends to be more operational. The traditional mindset "Diviser pour mieux regner" (inhibit coalition building to retain more power) is still in use today. "Managers think strategic and not operational".

From the remarks of our respondents, team work and community thinking were very important during schooling. "We had no school in the afternoon, only once a week one to two hours or physical education during the last two years before the Abitur. Extra-curriculum activities were very important. We all had hobbies (sport, music, etc.) scheduled in the afternoon or spent time with friends. So I grew in the scheme where school was not everything." These are aspects that the German school system

emphasizes. Together with the ability to dialogue with the teacher (= authority), German children are prepared for a consensus seeking, delegating management style which will not be of use to them if working in a French environment.

Another particularity of the French management is the importance of networks and personal relationships (Pateau, 1999). Without a powerful network, it is almost impossible to receive important information for defining the right strategy to follow as one interviewee stated: "I am aware about the importance of networks, but I have no chance to integrate them", "For top management positions, the alumni from the French "Grandes Écoles" have better chances, because of the network they have among each other. In the middle management, the biographies become wider and more diversified. There you need a mentor who will push you.". Information is a source of power, which in a hierarchical society needs to be held and is not given away easily. Your success in doing so will influence significantly how much power you have, and therefore will boost or not your career since "there is no systematic system for development and education on the job. Whether you do it depends on your relationship with your superior". The political nature of French organizations encourages information to be seen as a source of power and therefore is not easily given away (Schneider and Barsoux, 2003). This was also noted during the interviews: "If you want a decision being made, go to the top and convince there", "If you want to get information, you need to look for it, using your network. Information is power. You give it away if you trust somebody or if you want to act strategically"

Empathy was also an issue which was seen differently depending on the country culture. As already discussed, French managers do not deliver information systematically and broadly, since information is associated with power. While a good manager in a German organization needs to be very knowledgeable in order to coordinate properly the tasks he has been delegating to his team and readjusting if necessary the responsibilities he has been given away, a manager in a French organization will not give away the responsibility for the complete task as could be observed: "there is a fear for people in the middle management to take initiatives. They want to have everything approved through the hierarchy. At the same time, French people like to adapt the rules to their own needs, they do that all the time." Therefore a French manager will need to spend more time to motivate employees and tightly control their tasks since "the first attitude is to say no or to think at reasons why things cannot work out. As a manager, you have a huge task to motivate people" Since the people might not have the overview, a manager will spend more time fitting everything back together (Liouville and Schmidt, 1999). This greater hierarchical distance in France leads to a bigger human distance between managers and their collaborators as was also commented upon: "the only place where you exchange private news is the coffee vending machine on the floor"" At least, our German interviewees have



noticed that very few of their French colleagues seem to have extended intercultural competence. The importance of this competence is not well recognized and established yet. The younger French managers however seem to have a better understanding for this requirement. The German school system on the other hand with its focus on “know your cultural roots but be open to the world” does teach school children some basics of intercultural knowledge. Given the high migrant population in Germany, this will certainly increase within the next decades.

The current study shows that school systems, in this case the German one, are culturally tilted towards the dominant values of this society and it is difficult to acquire knowledge that prepares for a successful start in a different culture. However, recent research revealed that individuals high on cultural metacognition are more apt at adjusting their expectations when a different-culture counterpart disconfirms culture-specific behaviors (Mor, Morris, and Joh, 2013).

## CONCLUSION

According to the study, it can be concluded that where the German school system does not teach values to succeed in France, it is actually quite successful in bringing cultural metacognition to its pupils, enabling them to adapt quite easily to environments where culture-specific behaviors are quite different. Most likely this cultural metacognition is transferred through the German desire to learn from the past and prepare for the future as well as the sense for community thinking. When one moves abroad, the new community seems to become the focal point of interest, so that these interests have to be sustained.

From this research certain implications for policy makers and for the corporate environment arise. In order to educate managers that are successful in a French (and more generally in a foreign) environment, policy makers should continue the path that has recently been started, teaching children tolerance and respect for other cultures. In addition, a strong focus should be set on those skills that were found to be beneficial, i. e. ability to communicate in other languages or community thinking. However, also very important seems to be creating awareness that things can work out, even if they are not argued fact-based or result from a consensus process.

Companies can learn from the study that in order to be successful in a French environment care has to be taken to select people that are fluent in the French language and understand the cultural environment. In addition, training could be beneficial to teach skills such as networking and communicating the right way.

Obviously, the research has some limitations. Firstly, it would be interesting to extend the sample to other professions. So far, only managers have been researched that were very fluent in French. It would be also interesting to extend our research to German managers who work in English because of missing

language skills. Moreover, it would be also interesting to observe the reverse situation: French managers in German-led companies in order to be able to develop guidelines for a sound intercultural education. This is especially important given the success of schools in Germany that issue two degrees at a time: the French baccalauréat and the German Abitur. These three approaches will be the next steps to continue this research.

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## CONFLICT MANAGEMENT: FUNDAMENTAL APPROACHES FOR PROMOTING THE INSTITUTION

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### ABSTRACT

The human behavior could impact any self or professional development, differences in goals and backgrounds are necessary for organizational well-being, but frustration, resentment, inequalities, competition... etc. are where the conflict finds its roots. They are all syndromes of a covert conflict in the growing number of employees, especially those who are reaching the top of their grades. Under such organizational pressure, inadequacies can often be accompanied by feelings of anger, appeals and deep disappointment by the quality of the working lives and the apparent incapacity to find effective and lasting strategies to work life's difficulties and challenges. Compromises, confrontation, clarification among others, are ways to address individual-organizational value conflicts. While choosing the approach to resolve a conflict, its important to know that conflicts can have benefits not only disadvantages for the team. Even if there are benefits, the inconveniences could have a devastating effect on the organization. Managing conflicts step by step can be a low-cost and a high-impact element of the total compensation package. Management might orchestrate staff heart and mind by eliciting commitment, and focusing on intellectual capital growth which will increase development on a global scale The central message of this paper is to explain how conflicts are a natural outcome of organizing, performance, but these differences can throw groups into conflicts and what are the different approaches to deal with them according to the situation.

**Keywords:** *Conflicts, Organization strategy, Sources, Benefits, Drawbacks, Coping strategies, management, Politics, solutions.*

### INTRODUCTION

The presence of so many organizations on the market in almost all fields is now increasing competition on a global scale. In order to survive, almost all organizations are confronted with the challenge of initiating pioneering changes to enhance their competitive position. Nowadays we are witnessing great changes in the world with the new technologies, the globalization of trade and also continuously developing demand.

In Egypt, due to the high population and the high unemployment rate, organizations tend to have more labor than they actually need. The productivity of a certain organization could still be the same in some cases even if they reduced their labor by half.

This phenomena leads to two main organizational issues, first on a strictly financial scale, and second on the conflicts issues, which is what we will be discussing in this article.

Institutions are continually changing in order to increase their competitive advantage and gain more market share but also adapt themselves to the new trends and technologies to meet customer satisfaction, but It's a vicious cycle and the only way an organization could find the optimal solution is to learn advanced management skills. Managers tend to ignore that with all the strategies and production between all organization's activities comes conflicts. "One of the subtler challenges for those who study communication and conflict is to explain how people come to understand this exchange when the "arrows" are indirect or tacit"

Top management positions and administration tend to adopt a passive approach and ignore conflicts in their institutions instead of struggling to recognize, understand, and apprehend it and deal with conflicts effectively to find ways of reducing, preventing, or dismissing it. As a result to this approach by managers, organization's assets and resources may not be effectively and efficiently used and some of it are wasted as their personnel involve themselves in dysfunctional conflicts and fail to use the opportunity of using this conflict or problem to improve their effectiveness and solve it once and for all. "Conflict is the natural process by which we mediate all of our differences". Conflicts are a part of human beings that cannot be denied, Conflicts in institutions are a problem facing all types of organization, but they do not all use the same approaches to fight or solve this issue. Is there an optimal approach to deal with conflicts in institutions? How can conflicts be avoided? And what are the management's skills required to do that? The aim of conflict management is to administer conflicts in order to limit its negative aspects. The objective of this research is to increase learning and group outcomes including performance in organizing the company environment by recommending tools to managers. The used theory we will start by elaborating on the types of conflicts that occur repeatedly within institutions, the different approaches to deal with conflicts and their sources, the benefits and drawbacks and try to answer our problematic question by developing an optimal theory step by step to approach conflicts and also the required qualities for a good conflict manager.

The theory exposed in this paper is to identify the types of conflict in order to choose the most suitable solution that wouldn't generate an additional cost to the organization and would respect the individual differences at the same time. In resolving conflicts using this approach, in practice, we follow initiative tools and a step-by-step management.

Indeed, this way of conflict resolution brings efficient and applicable skills to cope with interpersonal or business crisis. It guides managers through the supervision of conflicts within the organization.

## WHAT IS A CONFLICT?

A conflict or a conflict situation is the outcome of an opposition between persons or entities. A conflict is generally responsible for emotions such as anger, frustration, fear, sadness, and resentment, among others. Occasionally it can be through aggression and violence. The term conflict is also used to describe a state of contradiction. If a person or entity does not agree with the ideas of the other that does not necessarily characterizes a situation of conflict. It often occurs when one party attempts to affirm its position regardless of the positions of other parties. "One key to making conflict productive is to achieve a relative power balance between the parties. Productive ways to balance power include empowering the weaker party, having the stronger party limit their own power or increase their dependence on the weaker party, or strengthening the parties commitment to maintaining their relationship."

"The mechanics involved in managing conflict, are tools that we use to turn a perfectly natural event into a positive and growth-producing outcome". We often think that the conflict between people is a "bad" relationship. However, many sociologists or philosophers (such as Hegel or Nietzsche) or psychologists develop a more positive view of the conflict as a "type" of relationship between individuals. Psychologists Dominique Picard and Marc Edmond consider that conflicts are not errors of communication, but that it is normal and common to argue in any relationship or situation that involves communication, whether it's direct or indirect. *"Relationship problems are inherent in the nature and dynamics of a relationship because living together and communicate is complicated and difficult"*. Nevertheless, the conflicts are often experienced in agony, and if it is not appropriately and immediately treated, it prevents the relationship to grow and be productive and prevent partners to succeed. That is why it is frequently necessary to regulate and resolve.

## CONFLICT IN ORGANIZATIONS

Conflicts are an endless in the existence of an organization. Conflict or confrontation situation do not usually receive a lot of attention. "A new form of cosmopolitan conflict resolution is emerging, which offers a hopeful means for human societies to handle their conflicts non-violently and eventually to transcend and celebrate their differences". The negotiation of a conflict often involves third parties designated officially to participate in the dispute settlement. "In arbitration the conflicting parties choose a neutral third party to decide the outcome of their conflict. Mediators help the parties to negotiate, and reach their own mutual agreement. ". Conflicts are rather in the interactions between

the members over their daily routine activities within the institutions or between employee and his direct hierarchical superior or even between two partner institutions.

We consider there are 4 stages in every conflict: irritation, annoyance anger and violence. The objective of each organization is to keep any conflict within the irritation or annoyance level and never reach anger or violence. "The organizational members to select and use the appropriate styles of handling conflict so that various situations can be effectively dealt with. Organizational learning and effectiveness can be enhanced through an appropriate diagnosis of and process and structural interventions in conflict. "Conflicts in institutions are usually considered by people and managers to always have a negative impact on the team and the organization. "When conflict becomes a win-lose contest in our minds, we immediately try to win". We tend to ignore the fact that sometimes it can have positive effects like motivation, positive competition or develop communication skills for the parties involved, that's why managers are expected to adapt the institution to these approaches but this is challenging because they expect to manage and deal with conflicts within the organization, but they are often one of the parties involved, which means they have to develop their skills and approaches too before implementing them within the organization.

## **TYPICAL CONFLICTS IN ORGANIZATION**

### *Interdependence conflicts:*

Interdependence conflicts occur within the work environment, when the duty of a person depends on the duty of another, when there is interdependence of tasks. These conflicts often occur also in teamwork, when one group is lacking support from another group, when there is a horizontal communication between two departments that have a workflow interdependence, and on a bigger scale, organizations lacking support from suppliers, or partners.

This type of conflicts could also occur when there is an inappropriate segregation of duties, which is the concept of having more than one person required to complete a task. The concept of having more than one individual in one single task is usually used to prevent errors or fraud, so it is advantageous and productive for the organization, however it does generate complications and conflict that could be time-consuming for the team.

### *Internal conflicts:*

Internal conflicts are what occur when goals are not coherent. People who have a personal objective linked with decision-making, sometimes goes against the best decision for the project, or when one department's goals are not fitting the goals of the organization, or when the decision-making is made

by a department without consulting what is appropriate for other departments so its is not the best alternative for the project or the organization's sake. These conflicts are also characterized by unclear methods and procedures for heavy prioritized work. The routine activities or tasks are usually characterized by rules, procedures and hierarchical referrals, and this is why they do not generate as much conflicts as the heavy exceptional activities. The lack of communication in an organization creates a malfunction that is also a reason why internal conflicts occur. The means of communication should not be limited and should be expanded between the various departments to support the workflow interdependence.

#### *Leadership conflicts:*

The leadership conflicts are based on perception and intellectual abilities. Two or more persons whether they are on the same hierarchical level, or not that have different views on how a task should be performed. When they are not on the same level, the supervisor is definitely going to pursue his thoughts, but when two persons on the same horizontal level, there will be a conflict generated by this malfunction. Leadership conflicts also occur when a person is having an ideological conflict with immediate superior, because it disturbs the work harmony and synchronization. While making a decision or setting an objective, if two or more persons share the task, it could create also a leadership conflict.

#### *Organizational conflicts:*

A dysfunctional organizational function: characterized by poor distribution of tasks, no specific job definitions, interdependence of tasks

Dysfunctional organizational functions are the source of many conflicts. They are characterized by a limited or poor distribution of tasks. There are no definitions or models on how to perform the task, no specific job description and among that an interdependence of tasks, these three elements generate conflicts that could affect more than one department in the organization. A lack of effective relationship and coordination with the hierarchy was demonstrated to form disorder harmonization too. The last organizational conflict source is the scarcity of resources. A malfunction within scarcity of resources like space, equipment, training is a crucial source of conflicts that affect the workflow interdependence.

#### *Psychological conflicts:*

The psychological conflicts are manifested by persons in various forms: *violence, anxiety, depression, aggression, frustration etc.* They are mostly related to the personality of individuals involved and depend on the scale of the conflict or confrontation. It is the most it is the most unforeseen and therefore not a predictable type of conflicts. In the work environment it is hard to determine the personality of individuals only based on their work performance, consequently conflicts can begin with two persons



working in a team while having personalities completely distinctive. They are also due to a lack of post/person adequacy; for a person to be good in a certain post, it shouldn't be determined only by academic or professional experience, the character, the personality and the temperament are colossal factors to consider as well.

*Economic sources:*

Conflicts due to economic sources arisen usually when a company is realizing substantial profits without fairly distribution to their staff or without compensating them. It could also occur due to failures of dysfunctions of the financial department, due to fraud or theft that could misfortune all employees. The unfair distribution of expenses among various departments could also generate conflicts and especially when there is an important workflow interdependence and horizontal coordination.

## SOURCES OF CONFLICTS

Source	Reason
Ideas	Conflict of opinion or ideology that have arisen when there is a clash of concepts, thoughts, or viewpoints.
Interests/Needs	Conflict of competition or rivalry noticeable in occupations where search results is needed. Characterized by the confrontation between those who have some experience and graduates who want to develop new abilities.
Position/Role	Conflicts of authority or power that oppose two people of the same rank hierarchy following encroachment by one on the skills of the other. Could also occur vertically between two people of different hierarchy, when one imposes his ideology on the other.
Personality	Misunderstanding that it always finds its source in a conflict arising from a misinterpretation of facts or shares.
Values	Conflict that have arisen when there is a clash of morals, ethics, standards or beliefs of two persons.

## CONFLICTS OUTCOMES FOR TEAMS

The conflict outcome for a team can vary depending on how the conflict is solved, whether it has been avoided or not, which type of conflict happened and which approach was used.

The positive outcomes are: team spirit reinforcement, reinforced team productivity, and captured opportunities by parties in conflict. "The management of organizational conflict involves the diagnosis

of and intervention in conflict. A proper diagnosis should include the measures of the amount of conflict, the styles of handling interpersonal conflict, sources of conflict, and learning and effectiveness. It should also indicate the relationships of the amount of conflict and conflict-handling styles to their sources and learning and effectiveness". The negative outcomes are: team disruption, team lack of productivity and an increased risk within the team.

The main Benefits of Conflicts are that it promotes growth, through learning to overcome challenges in unison with others among that, it promotes creativity and innovation as solutions are suggested to overcome the differences between the stakeholders. Going through conflicts encourage the development of interpersonal skills, as individuals strive to get on with each other in spite of their differences and builds a mutual understanding of different values, aspirations and cultures because sometimes people are not trying to be difficult, they just have a different mind-set. The social change and progress, challenges the team and benefits them as society changes, develops and culture unfolds. The process of resolution of conflict stimulates overcoming the stagnation effect. The challenge of conflict resolution or confrontation in general also promotes originality and reflection when your viewpoint is questioned. The core Drawbacks of conflicts for a team is that it creates a higher stress amongst the parties and a lower productivity as effort and resources are redirected into the conflict and away from the work in hand for all the parties involved. So the Time spent in the actual conflict and in resolution is taken away from other, more important matters. If the conflict is between several departments this could prevent or slow the entire organizational process. There is also lower interpersonal cohesion as individuals and among their supporters, people take sides and begin to stereotype each other. "The intervening party must assess the conflict, design an intervention, and choose appropriate intervention tactics. To be effective the intervening party must have excellent communication skills.

They must gain control of the process and transform the conflict elements. Taking sides shifts one from being a third party, to being a participant in the conflict ". During a conflict, inappropriate decisions are made to support the various causes and positions of the parties, or simply while trying to end the conflict. When hierarchy is involved, Status and ego become more important than reason and reality, which amplifies the conflict. The possibility of increased costs to cover negotiation preparation, negotiation time, mediation and/or arbitration costs and, perhaps, legal costs are also a major drawback of conflicts. So how can we deal with conflicts and make sure we gain the positive outcome for the team and the benefits for the organization?

## **COPING STRATEGIES**

In psychology, coping is expending conscious effort to solve personal and interpersonal problems, and

seeking to master, minimize or tolerate stress or conflict. Psychological coping mechanisms are commonly termed coping strategies or coping skills. "Conflict and its constructive management are important for the optimal functioning of organizations; however, most conflict management recommendations still focus on conflict reduction, resolution or minimization, because of the negative impact it can have on organizations and individuals. Conflict management should rather be focused on continuous transformation. It can lead to distress and distraction from work, affecting decision-making processes, relationships and individual effectiveness, as well as productivity and creativity."

*Denial:* Rather than face an ugly situation, an individual can pretend that it does not exist. Reality is denied; the situation and any discussion about the conflict situation are avoided.

*Repression:* When denial becomes so extreme that someone is unable to recall the conflict, this is repression. For example, an individual can have strong negative emotions about a person or a group, without knowing why he/she feels so strongly because the original cause is emotionally too difficult to confront again.

*Projection:* Rather than accepting the conflict situation and taking any responsibility for it, it is projected onto someone, or something, else. Thus, an innocent bystander in a situation could be forced into the role of victim.

*Displacement:* When power differences make it impossible or inappropriate to be angry with a person or group, or there is a social or other constraint, then the anger is referred onto another, usually weaker, party. For example, an employee may be pressured by his manager, the employee in return is bad tempered with his wife, so the wife snaps at their son, who kicks the cat - this is displacement

*Regression:* Sometimes, because the conflict is difficult to manage, an individual may regress to behaviors that he or she successfully used as a child in order to cope with stress and/or pressure. Such behavior could include crying, stamping feet, shouting or refusing to speak.

*Fantasy:* Rather than deal with the real world in which there is conflict, the individual breaks away into prolonged fantasy. In extreme cases an individual may report things that were said - believing them to be true - when, in fact, they are a fantasized version of events.

*Intellectualization:* Here the conflict is spoken about in a clinical and abstract way with no recognition of individual emotion or involvement. Conflict usually generates a lot of emotion, and if this is ignored then total resolution is not normally achieved.

## **CONFLICT MANAGEMENT: POSSIBLE APPROACHES AND WHEN TO USE THEM**

► Avoid / Withdraw: no resolution

This approach should be used in cases where the parties are not ready to confront, when one party has to withdraw due to a deadline or when the tension is too important and may have a severe impact on the entire organization.

► Force: Impose a solution

The force approach should be used in a situation where you know you are right, when there is an actual “do or die” situation and when relationship with the other party is not important.

► Smooth: Decrease emotions

This situation creates an obligation for a trade-off at later date, used mainly when you wish to maintain harmony or when any solution is adequate

► Compromise: both parties approximately satisfied

To be used in a situation when a “win/win” is required or when you have limited time preventing the parties from confrontation. This approach is also basic for maintaining relationships

► Collaborate: Incorporate view points in the decision

This approach can only be used when you have time, when tension is too important or when commitment mode is possible.

► Confront: Solving problems

This approach also can only be used when there is enough time, when there is mutual trust and when you want to build strong skills and values within the team or institution.

## INDUCTING CONFLICTS

In the institution one of the party or the manager is sometimes obligated to initiate a conflict. These situations are a proactive way to solve a problem: by initiating the conflict the person is forced to make the other party realize that their comportment or acts is a source of misunderstanding and generates a problem for the institution. "The difference between a well managed and a poorly managed conflict is a function of how we respond- of whether we act or react to the conflict, and of what skills and strategies we employ in the process". There are two main elements for initiating a conflict: when and how?

*When?* When a decision must be facilitated immediately, any emergency or death/life matter, when the offender does not realize his behavior is a source of conflict, when there is a lot to gain by ending the offender's behavior or when frustration appears regularly.

*How?* The manager could initiate a conflict by directly making a status focusing on facts, by expressing feelings or needs and interest either personal or organizational. There is also a less offensive way like formulating a request or offering a proposal while expressing the benefits on an institutional level.

In order to deal with these conflicts and be able to resolve them or initiate them when needed, several qualities are indispensable to be a good conflict manager rather than just a manager. The most important attitude is to be win-win oriented, to present the case and benefits on institutional level that could profit both parties in order to adjust them into ending the conflict.

These aspects require the manager to be a good educator too, be able to discuss, teach, learn, communicate and interconnect between parties. The manager should have empathy, responsiveness, and approachability and be emotionally intelligent in order to find the appropriate tactic to deal with complications. While resolving conflicts, in order to avoid intensification of the problem, the manager should be a good negotiator, especially when he or she is one of the parties involved. A plus would also be an appreciated sense of humor, to cheer and push employees to be more optimistic, confident and enthusiastic.

## HOW TO MANAGE CONFLICTS STEP BY STEP

Stage	Purpose	Advantages	Disadvantages
Identify stakeholders	To make sure that we address the whole and precise conflict	- Puts an end to the issue. - Simple approach	- Time consuming - Confusing
Study the problem	To collect information to check relevancy and accuracy	- Improving Relationship with employees - Relevant data	-Not certain - Have to consider all perspectives
Select a strategy	To approach conflict according to appropriate technique	- Effective and efficient - Adaptable and flexible	- Confusing - Strategic decision
Set climate for conflict resolution	Formal, informal, involving hierarchy or not, one to one or group meetings	- Helps solving conflict - Large part of the resolution process	- Hard decision - Need a lot of information
Start to act	Using the selected approach, tackle or avoid, the conflict, and motivate employees.	- Generating Hope within employees - Satisfying all parties involved	-Might cause another conflict - Critical decision

## CONCLUSION

To conclude, we can say that organizations have always faced conflicts but now more than ever it has to manage them and evolve in order to survive in the market and attain its objectives. The sources of

conflicts are various and depend on the type of the organization and its ideologies, they arisen among all levels of the hierarchy and affect on more than one level. Managers can use the positive impact as a competitive situation but if opposing actions generate antagonistic state, the manager needs to take decision, and needs to know how to deal with it. Once the goal is defined, alternatives are identified; a choice with the highest probability of success is selected to face the problem. When conflicts do not receive enough attention as we explained, their outcomes are worse and could involve other parties and reach a no settlement point. The outcomes of any conflict are only relevant if the conflict is solved in an appropriate convenient way. Coping strategies are a way to solve interpersonal problem to minimize conflict, they depend on person's psychology and personality, and it is a way to accept the existing of a certain conflict without dealing with it. If a person fails to cope with the conflict, it is time to manage it, there is many possible approaches and should be used according to the current situation faced. In certain conditions, managers forced to initiate conflicts in critical situation in order to reach organization's goals. There is précised presented stages to manage conflicts step by step each approach has certainly advantages and disadvantages, and it is up to the manager to decide what, when and how an approach should be applied to solve the present conflict, and this is why they require certain qualities.

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## ENTREPRENEURIAL INTENTIONS: A GROUNDED THEORY OF GREEN-FIELDING

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### ABSTRACT

A conclusive rationale behind the continued global growth in entrepreneurial activity remains the subject of academic and economic debate. This study provides additional insight into entrepreneurial intentions via the application of an inductive methodology, grounded theory where the aim is theory generation rather than verification and therefore the original findings provide a fresh contribution to knowledge.

The paper provides a contextual background and subsequently draws on a theoretical sample, drawn from a range of sectors that are geographically located in North East Wales to generate the grounded theory. A summary of grounded theory principles and procedures follows. The range of properties and sub-categories pattern out during the coding process of the empirical data which depict earnest behaviour in a range of contrasting situations linked to individual concerns. The concerns are founded on two main factors, circumstance and aspiration which fall into three descriptive areas of expected to, need to and want to.

Throughout the data the central behaviour themes demonstrate a desire to seek fresh opportunities, remote from traditional organizational and hierarchical constraints, conceptualised as green-fielding. The paper introduces a selection of diverse concepts with the literature review to enrich the study.

Within the concluding discussion it is evident that the broad nature of entrepreneurial origins produces additional knowledge as working patterns evolve to encompass societal changes and priorities. Seeking further clarity as to where and to what extent the identified categories cross over, or have clear-cut boundaries is the recommended area for further research.

**Keywords:** *grounded theory, entrepreneurial intentions, business inheritance, project-based careers, third-age entrepreneurship, demographics*



## CONTEXTUAL BACKGROUND

An expansion in zero and micro-sized businesses was accurately predicted to continue increasing (Green, 2012a, Green, 2012b) to reflect the growth in project-based i-careers, characterised by an individual operating in the manner of a business entity. Various sources, including the UK Global Entrepreneurship Monitor ([www.gemconsortium.org/Data](http://www.gemconsortium.org/Data)) retrieved on 02 February 2014) and the Department for Business, Innovation & Skills reported entitled Early Stage Entrepreneurial Activity Rate (May 2013) report a steady increase in business start-ups following a relatively static period since the millennium. Burn-Callendar (2013) reported 90,000 new businesses being created in the first half of 2013, a rise of 3.4% during the same period in 2012. Almost half of these businesses were set up with less than £2,000 of working capital and required no external funding. Companies House figures for new start-ups have increased from 440,600 in 2011 to 484,224 in 2012 and unaudited indications provide a total figure for 2013 as being 526,446.

The education sector is supporting would-be entrepreneurs with two new courses commencing in October 2013. In Swansea a new BTEC qualification for 16-19 year olds was launched under the banner of the Entrepreneurship Academy Wales. Glyndŵr University validated a BSc Entrepreneurship, the first course of its type in Wales and accepted the first cohort of students in Autumn 2013.

Established entrepreneurial businesses are participating in a pledge to make Wales a centre of entrepreneurial activity. This initiative is supported by The Big Debate ([business.wales.gov.uk/entwales2013](http://business.wales.gov.uk/entwales2013) retrieved on 02 February 2013). The debates ran from November 2013 to March 2014 and attracted wide audiences.

In terms of age profile one in six new businesses started in the UK are run by individuals who are 50 and over ([bbc.co.uk/2/hi/business/7138965](http://bbc.co.uk/2/hi/business/7138965))

Based on this growth, this paper seeks to establish the intentions that lie behind this structural change in the make-up of businesses that is cited by [www.telegraph.co.uk/finance/businessclub/10471135](http://www.telegraph.co.uk/finance/businessclub/10471135), 25 November 2013 as being the driver behind economic growth in the UK during the 2013/14 period with one in five of the 90,000 new business started in the first half of 2013 classified as high growth.

## THEORETICAL SAMPLE

An initial search of the literature, with a view to sourcing a definition of terms revealed that most previous research on entrepreneurial intentions has used student samples (Vinogradov, Kolvereid & Timoshenko, 2013). This opinion suggested a gap, which was expanded further when searching for research on aristocratic entrepreneurs which proved to be almost non-existent and provided a rationale to undertake the research based on the individual as the unit of analysis. The boundaries of

the sampling framework, which complies with the technique of theoretical sampling, are adhered to through delimiting to a manageable scale (Glaser, 1998). This study incorporates several strands in order to add to existing knowledge from which students or recent graduates were excluded, the sectors are listed in table 1. Choice and necessity, for individuals over 35 years of age, and those who were subject to enterprise inheritance formed the diverse theoretical sample.

Respondent	Entrepreneurial Intention	Sub-Category
1	Clothing for the Elderly	Butter-flying/need to
2	Frontier Vacations / Events	Inheriting/expected to
3	Beef rearing	Inheriting/expected to
4	Storage and retrieval facilities	Swan-singing/want to
5	Entertainment /Catering	Inheriting/expected to
6	Technology Solutions /Software Development	Swan-singing/want to
7	Gardening services /app based	Butter-flying/need to
8	The European Student Abroad	Butter-flying/need to
9	Community Activity	Swan-singing/want to

## METHODOLOGY

The methodology used to produce the theory of green-fielding is grounded theory. This section provides a brief overview of the procedures that are completed in the application of the methodology. Grounded theory is a general methodology with no theoretical perspective that can be used with any type of data and any theoretical concept. It is a concept indicator method that requires a search for latent patterns in the data being used (Glaser, 2013) that emerges when the analysis is pitched at an abstract, conceptual level. According to Griffiths (2013) the virtue of the method is the neutrality in terms of the approach to data to provide a bedrock that generates the categories of the theory.

Staying open to what can emerge during the grounded theory methodology presents various views, one being the suspension of knowledge and preconceptions (Glaser 2013). To illustrate the suspension of knowledge the abstract concept of mental boxing is proposed which requires the researcher to metaphorically close the lid on a body of knowledge for a period of time until the memo sorting and writing up stages are reached. Imas, Wilson and Weston (2012) comment on respondents being knowledge-makers in their own right and the focus should be on the actual words, rather than superimposition of the analyst's interpretation.

The seminal text for any grounded theory study is *The Discovery of Grounded Theory* written by Barney Glaser and Anselm Strauss in 1967. Within this text there is clarity that a grounded theory should enable prediction and explanation of data; to be useful in theoretical advances; be usable in practical applications and give control of situations. This tall order provides a perspective on behaviour to

guide research. Clear categories are verifiable in the present and understandable from any viewpoint. In achieving these criteria the theory fits, works and has relevance to the subject matter being researched.

Generating a grounded theory requires the generation of “conceptual categories or their properties from evidence; then the evidence from which the category emerged is used to illustrate the concept.” (Glaser and Strauss 1967:23). The theory is made up of categories and properties within a “systematic relationship between these two elements.” (Glaser and Strauss 1967:36). A property is an element of a category, which in turn is a stand-alone element of the theory illustrated in a conceptual manner, indicated by the data, and not the data itself.

Glaser and Strauss (1967) urge the grounded theorist to incorporate diversity and levels to synthesise connections within the data. This is achieved through theoretical sampling which requires the analyst to jointly collect, code and analyse the data and then deciding what data to collect next and from what source in order to develop the emerging theory (Glaser and Strauss 1967). This is the process of constant comparison to enable integration, consistency, plausibility and retaining a closeness to the data during the coding process.

To complete the constant comparison cycle (Glaser and Strauss, 1967) requires four stages which are undertaken after each sample of data is collected and coded on a line by line basis. These processes commence with the comparison of incidents applicable to each category through establishing similarities or differences with previous incidents. At this stage a memo to capture thoughts should be written. A memo taps “into initial freshness” (Glaser and Strauss 1967:107) of reflection, reduce conflict and reach conclusions.

Following comparison the integration of categories and their properties occurs and involves notice and realization of “some related theoretical sense” (Glaser and Strauss 1967:109). Delimiting the theory prevent overwhelming issues by removing non-relevant properties to reduce the theory to a small number of higher level concepts and supports the generalization of theory into other areas. This practice underpins saturation, a stage where if a further incident is only adding bulk it is not coded as it adds nothing further to the theory.

At the writing up stage the analytic framework forms “a reasonably accurate statement of the matters studied” (Glaser and Strauss, 1967:113). Sorted memos are brought together under category headings with codes to reach theoretical completeness revolving around a core category, which has a preponderance of relationships with many other categories and properties (Glaser, 1998).

## THE GROUNDED THEORY OF GREEN-FIELDING

By engaging in the practice of theoretical sampling as an integral process when generating a grounded theory the empirical data patterned out into three sub-categories, each possessing their own distinct conceptual properties. In presenting the grounded theory of green-fielding, the linear sequence belies the concurrent sequence of data collection and coding. The theory is then drawn together under the core category, which conceptually depicts the central concern-resolving behaviour of would-be entrepreneurs.

A grossly over-looked segment of entrepreneurial research is the UK aristocracy who find themselves in a position of inheriting, often in either unexpected or earlier than anticipated circumstances, a business. On the surface this may appear an easy option, however the data suggests otherwise with references to accumulated debt, antiquated premises, outdated and inadequate organizational processes, poor human resource management and, in some cases, the prospect of substantial death duties, evidenced by: *"I had lots of taxes to pay and I had to work, I had no other means of supporting myself."* The level and scope of entrepreneurial intentions demonstrates acute innovation, borne of necessity where a sense of destiny, continuity and responsibility is deeply ingrained. This scenario generated the property of entitling, in many instances to fulfil the aspirations of others and to provide for future generations, the data states: *I was 13 when my father died and MD at 30."*

Within the somewhat rarefied surroundings of old-established business ventures there remains an aura of tradition and tightly interwoven bloodlines that is conceptualised within the theory as draw-bridging to severely limit any potential for diluting, contaminating or fragmenting; the core assets are clearly viewed as requiring protecting through *"I had to lend the company my pension money"*. In this type of situation *"don't be too arrogant to delve into every aspect."*

In contrast the behaviours within this sub-category that are clearly in evidence are a discerning awareness of the need to practice entrepreneurship through diversification when the draw-bridging techniques are attended to and there is a necessity to cross the defences and engage in a wider and more open context. Gerund examples from the data include *livestocking, corporate entertaining and shopping*. The intentions being two-fold; first to generate revenue that is profitable and second to exploit the doorstep unique selling points in a manageable manner which is conceptualised as regrouping in order to practise longer-term green-fielding. A final category is evident, as the absence of sound planning being experienced leads to a decision, to practice the concept of reserving. This type of behaviour requires financial and legal acumen to ensure clarity for the next generation and data fragment and originates from: *"I ploughed a lot back"* and *"I set-up share schemes"* and *"I'm never going to let this happen again."*

Inheriting as the sub-category is drawn together with references to: *"it will be a different era"* and *"someone running a business who hasn't planned for the future is leaving turmoil for others."* Culminating in the view that: *"Complacency is a death warrant for the next generation."*

Within the second sub-category, butterflying there is a saturation related to the search for the elusive elixir of wealth that has previously proved difficult to establish. Data fragments make reference to *"having no choice"*, the naming of the property. This is the view of the respondents and is a mental concept rather than physically factual, their view is depicted as *"I was unemployable."*

Respondents eligible for this sub-category relate a fragmented series of economic activity, routine work has proved unsatisfactory from a personal perspective and the data refers to *quitting*, frequently with little consideration for the consequences beyond the short-term abruptness. Attention is then diverted to other or new activities, which may be within a different sector and involve prospecting behaviour to ascertain possible future opportunities, which are relayed as being brief and suggest a quick-fix approach and evidence of limited tenacity, via *"it never quite made the grade."*

This is required in order to provide sufficient revenue to sustain the basic foraging elements of living that require personal movement for survival and are viewed as being *"racked with difficulties"* and there is increasing urgency as options reduce and *"it was desperate"* so that the view becomes *"it has to work."* There is evidence of *"weak foundations"*.

There are occurrences of repeated behaviour by the respondents which is required due to the short-term nature of the efforts which disappoint and conceptually pattern out to depict the haphazard movements and intermittent hoverings of a butterfly. The activity requires *"going round the corner"* in search of yet more new pastures.

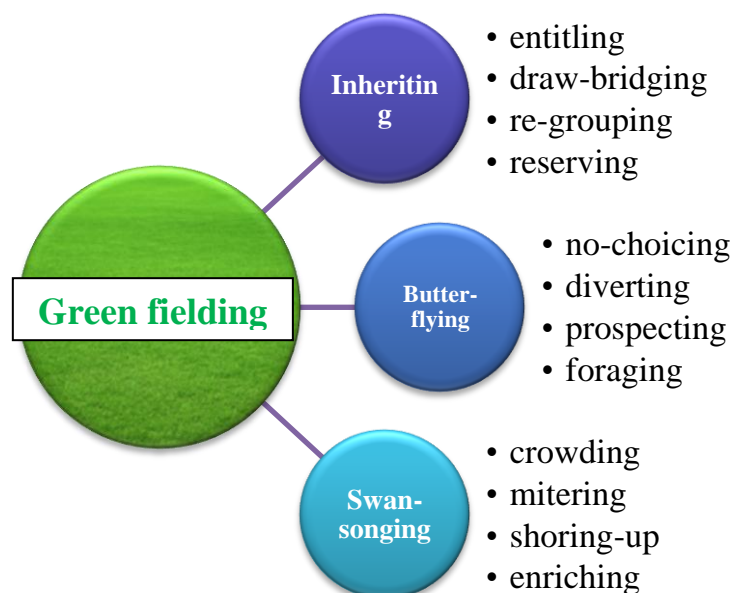


Figure 1: The grounded theory of green-fielding

Swan-singing is the third sub-category of the grounded theory where the data identifies several behaviours. Unsurprisingly the demographic profile of respondents in this area of the theory was older than in the other two. The sub-category is populated with two properties; one being respondents who had pursued a successful corporate career and may have experienced a redundancy situation, the other was populated by an opportunity to engage in a contracting situation or a bootlegging situation came to fruition.

The data makes reference to *"there was a cage above my head, it was full of lifers in there"* to describe a situation at the higher structural levels where selection, frequently repeated, has already occurred. In the traditional triangular shaped hierarchy there is limited availability at the top level, leading to crowding. In flatter organizations *"the gentle slope away from the centre is an organizational leakage"* both incidents conceptualise a movement away from a crowded centre, illustrated by: *"I felt I had enough about me to set up on my own"* and the concern resolving behaviour is *"I wanted to be at the summit."*

Mitering evolved from the concept of abutting from a corner to provide *"a strong foundation"*, the opposite of butterflying that emanated from *"don't spend money you haven't got"* and being asked *"fancy coming along, there might be some work?"* which is the evidence of bootlegging.

One property is labelled shoring-up and this concept refers to financial needs where pension provisions are deemed to be insufficient, which is addressed through *"living frugally"* or family finances require topping up to pay for education *"that hasn't finished yet"* or care for others and the outcome is a period of *getting by"*.

It is clear from the data that this entrepreneurial activity has *"passion"* and an opportunity to ensure that the *"learning never stops"* to make active use of a *"mind that is always ticking over."* Enriching occurs in response to the *"temptation to do something was burning"* and *"the drive is there."*

Again in the category of swan-singing is the need to be *"uncluttered"* and have *"a clear mind"* because *"ideas have been sitting in compartments"* and *"when you can jump in and be away, that is fantastic!"* The entrepreneurial feel is one of release to a sparsely populated place where ideas flourish.

Green-fielding depicts a freshness where contemplation, ambition, aspiration and conviction have space in which to converge into a unique offering that is the foundation of entrepreneurial intention.

## CONCEPTUAL FRAMEWORK

This section presents a concise review of the literature that has relevance to the theory of green-fielding.

The provision of a precise definition of an entrepreneur is subject to extensive debate within the literature which Yeung (2002) referred to as being a jungle of terminology. A view that it is

“insufficient to define an entrepreneur as an innovator without including some element of commercialisation” (Howorth, Tempest and Coupland, 2005) is based on the difficulties associated with the separation of actions and characteristics of entrepreneurs and the dynamic nature of the concept.

Carter and Jones-Evans (2000) refer to the involvement of managerial skills and capabilities that enable small businesses to demonstrate entrepreneurship in responding to structural and economic change. Ahmed, Zgheib, Kowatly and Rhetts (2012) propose that most existing definitions of entrepreneurship and the entrepreneur incorporate the outcomes of entrepreneurial activity. Also featuring in attempts to create a precise definition is the creation of new organizations and identifying and implementing goals using initiative to build an enterprise based on the individual traits of self-motivation and self-reliance.

There are two models frequently referred to within the literature appertaining to entrepreneurial intentions, one is cited as being The Classic Entrepreneurial Intentions Model by Elfing, Brännback and Carsrud (2009) that was originally developed by Krueger and Carsrud (1993) and makes reference to perceived social norms, that may be present during early upbringing and perceived desirability of the entrepreneurial state as one driver and perceived self-efficacy and perceived feasibility as a second driver, where personal beliefs are a driver and practicalities not overwhelming. All four factors combine to support intentions.

The second model is the theory of planned behaviour. Ajzen (2012) reviews the elements of the model which prioritises the extent to which people believe they can perform a given behaviour if they are inclined to do so. Contributory factors include pre-determined action towards a specific target within a context and timeframe. Individuals behave in a manner that overcomes obstacles using information and skills. Performance and perseverance generally increase with self-efficacy that supports “go through” (Green, 2012:114), when expected consequences and anticipated difficulties require perseverance (Ajzen, 2012), frequently evident in the early stages of the entrepreneurial venture.

A number of entrepreneurial intention syndromes have been sourced, they include: eureka, if-only, misfit and moonlighter, identified by Birley (1996) and the unfriendly push and no alternative (Beaver and Jennings, 2005). These syndromes have some similarities to the properties identified in the newly conceived theory of green-fielding.

Very little work is traceable on the topic of inheriting despite the position of sole proprietorship lacking a legal personality (Gaffney-Rhys and Jones, 2013). This study highlights the advantages of pre-emptive rights despite the findings which suggest many entrepreneurs stating they did not like to think about dying, respondents were not ready, or believed they were too young. In order to amend these views, the use of stories to clarify experiences and draw on prediction and understanding to

draw on inherited knowledge to generate a collective prediction. This enables knowledge to be transferred from being in the head to being in the system and encourage continuity (Garcia-Lorenzo, Nolas and de Zeeuw, 2008). A similar concept depicts entrepreneurship as an evolving unit: “as a member of society passing on key genes to successive generations” (Breslin and Jones, 2012:295) with a view to interacting in order to differentiate rather than replicate. This process is enabled through selecting for or against habits of thought, which are derived from habits of life, both of which are subject to revision on the basis of what will best support progress. As a result niche construction is established in which an individual uses time and space to make alterations (Breslin and Jones, 2012). There are also elements of evolution referred to by Misra (2012) who comments on the belief in endowed entrepreneurial DNA which has a never-say-die spirit, opportunity recognition acumen and in-charge body language. The theory of optimal foraging also makes reference to evolutionary aspects. Pyke (1984) has written extensively on this theory that is based on a number of assumptions, including an individual’s contribution to the next generation, measured in genes or ideas respectively. The extent to which the heritable component of behaviour is learned or innate is also considered, along with the currency of fitness. Pyke (1984) bases the theory on diet, patch choice, departure rules connected with patch exits and central place foraging. Optimal foraging is achieved when maximum return is obtained from the forage, handling times are efficient, the rate of encounter effective, leading to fitness currency. From a conceptual perspective it is relatively straightforward to apply this theory to entrepreneurial intentions and subsequent success.

From the view point of making selections with regard to foraging, whatever the format of the forage, choice theory or revealed preference and incentive compatibility drawn from game theory also have relevance. Game theory is a tool for analysing interactions among multiple entities and incorporates behaviour, feelings, decisions and an interdependency insight (Blumentritt, Mathews and Marchisio, 2012). The payoff of a dominant strategy within game theory exceeds all others taking into account the clearly stated problem or situation, those involved, the prevailing conditions, the payoffs from the various choice and predictions. The complexities have clear relevance when evaluating entrepreneurial intentions.

Where circumstances are radical, entrepreneurial activity is characterised by uncertainty and potentially boundary crossing, factors which provide the lifeblood of new ventures (Burke and Myers, 2007) but may experience a shortfall in the supporting area of knowledge intensity. These points are similar to those raised by Breslin and Jones (2012) and the difficulties encountered when attempting to achieve a balance between creativity and routinization as being a major difficulty.

Overcoming difficulties when entrepreneurial activity may be involuntary is eased somewhat by the expansion of the service sector which characteristically possesses low initial capital requirements and



low barriers to entry (Krasniqi, 2009). Further support originates from the presence of a prospector approach to strategy using the Miles and Snow model, which suggests a greater propensity to engage in opportunity seeking practices (O'Regan and Ghobadian, 2005). Personality influences that underpin prospecting include, targeting, organizing and support (Kickul and Gundry, 2002) that enable under exploited opportunities to be identified in a unique way (Breslin and Jones, 2012). Imas, Wilson and Weston (2012) focus on alternative thinking to create opportunities at the margins of society, using the concept of the barefoot entrepreneur where a better future is the aim. Much of the focus from this starting point is self-reliant, survival tactics where spirituality and defiance mechanisms are drawn upon.

Grey (2007) suggests the wisdom and experience of people approaching retirement is insufficiently utilised and entrepreneurial activity provides an alternative to leisure and may become a practical necessity as inflation catches up during longer retirement periods. The routine of employment is no longer applicable and the income can be viewed as a shoring-up contribution. With increasing age, individuals have come to understand their own strengths and weaknesses (Baron, Franklin and Hmieleski, 2013) and cope with stressors associated with entrepreneurial set up issues.

## DISCUSSION

Green-fielding contributes an additional segment of knowledge to previous work carried out in the area of entrepreneurial intentions as it conceptualises behaviours that reflect the changing expectations of the current workforce that seeks a complex intertwining of change and continuity in response to callings at various stages in life. There are several strands warranting emphasis at this stage, first is the desire to create an entity based on original, individual ideas and expectations with a view to generating new and different personal circumstances for the future, in the manner of an i-career. The i-career (Green, 2012a) is characterised by the individual taking charge of economic activity within the workplace in the manner of a micro-business, as opposed to a traditional employee or worker. Decisive mannerisms as opposed to a passive acceptance are evident within the i-career. Reflecting on these initial points it is clear that green-fielding answers concern-resolving behaviour in addition to possessing relevance and adds to the body of knowledge.

Structured organizations are a relatively recent concept, originating in the Industrial Revolution as machines enabled mass production to take over from individual craft production. Whilst there were valid economic reasons for this industrialisation of life, with improved education, health and life expectancy comes personal questioning about the purpose of work and the ability for a traditional model to meet post-industrial expectations. It is clear from the data that this is not occurring and

green-fielding could be given a harsher name of back-lashing against large corporations, globalization and structured team-working as a panacea for economic activity.

The grounded theory depicts a personal search, in various forms, for an individual approach, whether that is through inheritance, which is expected to, or butter-flying, which is needs to. Inheriting has a tendency to arrive in an earlier than expected manner and brings with it scenarios that Gaffney-Rhys and Jones (2013) revealed and urge earlier actions to limit asset damage and the need to draw-bridge during the entrepreneurial set-up stages.

As grounded theory is not restrained by the literature, the concept of optimal foraging (Pyke, 1984), game theory (Blumentritt, et al., 2012) and prospecting strategies (O'Regan and Ghobadian, 2005) all underpin the entrepreneurial quest for, as yet, untapped opportunities. The blend of green-fielding properties with these theories is supportive of survival and could conceptually relate to the popular operational management technique of lean manufacturing.

An ageing population is, in itself, presenting new, challenging situations and provides opportunities for individuals who want to, with a range of experiences and self-knowledge (Grey, 2007; Baron et al., 2013) also to venture into new pastures when the prospect of immediate retirement is not welcoming. This may be for social or economic reasons.

Governments and practitioners are recommended to ensure education and employment legislation are both able to match the projectification of working patterns in line with i-career characteristics are aligned with the global expansion of the incidences of entrepreneurial activity being a major contributor to economic growth.

The concept of passing on entrepreneurial DNA is revealed as being far wider than inheriting, it stems from the far more fundamental desire to leave a legacy – and procreation within the field of business provides a tangible form of asset to bequeath. The over-riding concerns are to locate a metaphorical green-field space from which an entrepreneur is able to forage in an optimal manner to ensure the enterprise is fit to trade. The challenge for educators, governments and practitioners is to provide this type of environment, a legacy for the current cohort of incubating entrepreneurs where inventions, however born, whether necessity or otherwise, have an environment in which they are able to flourish and contribute to economic prosperity.

## **AREAS FOR FURTHER RESEARCH**

Green-fielding theory has sufficient diversity that is could be readily broken down further into three theories to provide additional depth and provide progression towards generalisation, originating from different theoretical sampling. This research would probably generate new properties and categories and therefore provide additional insight.

Such is the contrast between butterflying and swan-singing that research to establish where and if cross-over between the two sub-categories occurs would generate further new knowledge.

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## **HOW TO BALANCE VALUE CREATION, APPROPRIATION AND EXPLOITATION IN THE EXPERIMENTAL LAB TEAMS: EVIDENCE FROM A FOCUS GROUP.**

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### **ABSTRACT**

In a modern knowledge economy that is able to exploit collaboration, relational capital and external focus of the open innovation higher educational institutions have been requiring to be more entrepreneurial: embracing its third mission represents for Academia the only way to have a positive influence in the new collaborative value creation. What should educational institutions specifically do in order to become increasingly more “entrepreneurial”? A useful starting point would be that of providing Universities with enough resources that would allow them to open further innovative paths of action. At the basis of my on-going PhD research is the idea that the experimental lab may represent a valuable tool in helping both aspiring entrepreneurs and Universities. The experimental lab is a community of personnel who interact with each other and with the external environment to generate innovation. The lab supports aspiring entrepreneurs by the means of work in team that proceeds by a trial and error model to get an idea ready for launch in the marketplace. There are several matters involved in such an ecosystem: coordination efforts, trust, risk of abandonment, value appropriation and externalization.

The experimental lab literature has pointed out different solutions to organize the daily work, even if has not reached a final outcome yet. This paper attempts to give a contribution in this particular field by trying to identify the best way to develop teams and coordinate their tasks. More specifically: how to organize teams, how to realize a balance among common goals and personal purposes and how to reduce the risk related to virtuality? In order to evaluate these issues, it has needed a step forward in delineating processes and dynamics daily involved in the lab functioning and that had not yet been covered within the experimental lab literature. To deal with this questions I used a focus group of experts to dissipate the most important themes and to make a contribution towards in shaping the functioning of an experimental lab in the daily work. Following the outcomes I have designed a virtual platform to simulate, by role play, the daily functioning of a lab in order to highlight limits, potentiality and related issues of knowledge sharing, value generation and appropriation.

**Keywords:** *experimental labs, entrepreneurial university, start-up, knowledge sharing, virtual teams, simulation, focus-group.*

## INTRODUCTION

In a modern knowledge economy that is able to exploit collaboration, relational capital and external focus of the open innovation (Chesbrough 2003), higher educational institutions have been requiring to be more entrepreneurial: embracing its third mission (Etzkowitz and Leydesdorff, 2000; Etzkowitz, 2004; Jongloed et al., 2008) represents for Academia the only way to have a positive influence in the new collaborative value creation. According to Clark 1998, the entrepreneurial university has the ability to generate a focused strategic direction both in the formulation of academic goals and as well as in the translation of knowledge produced within the university into an economic and social utility. The urge of European universities to develop their entrepreneurial features has become more and more critical due to two main reasons: one being the gap between Europe and the US in encouraging a bottom-up entrepreneurial phenomenon and the other being the on-going economic crisis that carries along a severe lack of employment. What should educational institutions specifically do in order to become increasingly more “entrepreneurial”? Reflection is needed in terms of strategy, resources and capabilities, external environment (Rasmussen & Borch 2010, Kirby 2006, Gartner 1985) R&D commitment, intellectual eminence (Di Gregorio and Shane, 2003), specific research fields (O’Shea et al., 2005), older TTOs (Powers and McDougall, 2005), resources invested in TTO personnel (O’Shea et al., 2005), and path dependent (Kenney and Goe, 2004; O’Shea et al., 2005).

Considering that it is not possible to act on the external environment or historical choices, a useful starting point would be that of providing Universities with enough resources that would allow them to open further innovative paths of action. At the basis of my on-going PhD research is the idea that the experimental lab (Curley & Formica 2008) may represent a valuable tool in helping both aspiring entrepreneurs and universities. However, in order to evaluate the real effectiveness and efficiency of the experimental lab, I have designed a virtual platform that simulates, through role play, the daily functioning of a lab. Thus, with the attempt to clear a few ambiguities related to the lab dynamics, I realized a focus group with professors and experts. The article is divided as follows: section 2 displays an explanation of the experimental lab and the simulation platform. Section 3 explains the methodology used for the study, section 4 includes the results and section 5 presents a conclusion.

## THE EXPERIMENTAL LAB

The experimental lab is a community of outsiders who become part of an innovative ecosystem rather than relying only on their capabilities (Andersson et al., 2009).

That innovative ecosystem is the Entrepreneurial University (Curley and Formica 2012) that exploits its knowledge base and collaborative network, to help aspiring entrepreneurs in turning an idea into a successful start-up. Aspiring entrepreneurs who simply hold an intuition and an entrepreneurial inclination can find valuable support in the experimental lab community, which allows them to access to capabilities and competences that they do not possess. The daily work in the experimental labs is built on collaboration and continuous feedbacks, in a pattern that involves continuous trials, errors and attempts. Substantial networking is extremely necessary and required for aspiring entrepreneurs in view of the serious struggles that the launching of a start-up would imply. The experimental lab offers this possibility in an evolutionary way through mentoring and coaching. Thus if the labs' strength and value are in the knowledge that flows between people within the network, it is also important to acknowledge diversity as an added value as well as a risky obstacle. It is crucial to understand who the participants are, what their role in the network is, how do they interact with each other and what is the expected trade-off in an environment that cannot disregard a flawless definition of procedures. This ultimately raises the critical question: how well and concretely does the experimental lab operate? How can high-expectation entrepreneurs behave perfectly in accordance with the suggestions put forward by others, even if the 'others' are experts in the field? There are several matters involved in such an ecosystem: coordination efforts, trust, risk of abandonment, value appropriation and externalization. The experimental lab literature has pointed out different solutions to organize the daily work, even if has not reached a final outcome yet. This paper attempts to give a contribution in this particular field by trying to identify the best way to develop teams and coordinate their tasks. One of the first differentiations within the experimental lab literature divides participants into two major groups: problem seekers and problem solvers. The problem seekers have to identify the issues that might emerge in the real market, whereas the solvers should aim to find possible solutions for the indicated problems. The two groups are interchangeable: at each iterative step, seekers become solvers and vice versa (Curley & Formica 2008). The goal reached by this differentiation, i.e. problems identification and solution, is easily achievable thanks to the organization of groups and their participants that are based on areas of common interest, as later suggested in the literature. There are certainly different ways to organize the work in the experimental labs. One possibility is that each member involved makes a critical analysis of its own capabilities and competences, in order to evaluate the compatibility with the idea. The best team is made up of those who have the best match between project and personal knowledge. Another option is that the lab senior managers, "the coaches", choose the most suitable participants, who could be already inside the network or outside of it. The third option is the "venture sitter" (Matricano & Pietrobon, 2010). The subject, in this case, would examine the idea's characteristics and the expert's capabilities to choose the

best combination between project and members who will thereafter arrange the team. The options that the venture sitter has are three:

- 1) A task force of experts that works in groups: each one expert in a specific field (marketing, strategy, research, technology, law, sales) analyse, diagnose and decide;
- 2) One member supervising a specific field and takes decision;
- 3) One member supervising a specific field but cannot take a decision if not before a confirmation from all other members.

Notwithstanding that literature offers valuable inputs and consultancy to face the daily work in the lab, there are open questions that this paper seeks to dissipate i.e. concrete teams' organization per cognitive areas, value appropriation, regulation of relations and virtual network fragility. More specifically: how to organize teams, how to realize a balance among common goals and personal purposes and how to reduce the risk related to virtuality? The key matter is the interaction between team members which allows them to produce the "reaction" that is necessary from intention to action, so from idea to start-up.

## **THE METHOD: A FOCUS GROUP**

In order to dissipate doubts and controversies during the platform design, I chose a focus group method.

The focus group is particularly useful to explore and exploit people's knowledge and experiences. The group discussion is recommended when the researcher has open questions and wishes to encourage an open discussion in order to discover and welcome people's opinions and the reasons behind them, accepting the possibility of taking the research into new, unexpected directions (Kitzinger 1995). The need to explore concepts in such deep manner persuaded me to use this qualitative method in order to make participants feel free to express themselves about different topics in their own vocabulary. Following an open track which includes a list of themes about what is going to be discussed, it has been possible to lead the dialogue in an open way analysing consensus, agreements and disagreements in a shared and common knowledge environment. The participants were not drawn together specifically for the research; the group was formed by colleagues and it "naturally occurred". This, in turn, enabled the creation of a hierarchy-less sample, making it easier for knowledge flow and exchange.

The discussion in a group proceeds with informal favouring cross-examination and participants challenging each other in contradiction (Kitzinger 1995).

Starting from the themes I personally wanted to explore, I identified 3 cognitive areas on how to organize the focus group discussion: entrepreneurship, innovation and finance. Based on these three



areas, I selected individuals amongst the University faculty staff, trying to form the best match between these three fields and the person's background. The final group was composed of 5 people and 1 external observer. I provided participants with a graphic representation of the platform in order to help in the discussion and clarify the basic schema. The overall purpose in organizing a focus group was that of arguing about the open issues related to the experimental lab's daily dynamics (organization of groups per cognitive areas, value appropriation and regulation of relations, virtual network fragility), in order to improve my research's virtual platform. Inside these areas, participants were completely free to debate as they preferred, either following an order or jumping from topic to topic as they wished. The focus group conversed for approximately 70 minutes. This was recorded and transcribed, allowing me to take note of the different typologies of interactions, questions, complaints and mentions about each other's opinions.

#### *Analysis and results*

Thematic network analysis (Attride-Stirling, 2001) is one of the primary methods of analysis of the focus group data. I was interested in the topics that were more common and more discussed amongst the participants, in relation to the 3 macro areas that have leaded this research. It was not a quantitative count on how many times some concepts were being discussed during the focus group, as much as an attempt to point out the subjects that were spoken for longer and that spontaneously arose from the experts' considerations. My focus was not that of suggesting to the participants the global themes (Attride-Stirling, 2001), yet to simply propose them the macro concepts from where to start the debate. The analysis went on by examining the transcript's conversation and defining the basic, organizing and global themes. The basic themes are simple premises and suggest very little about the text as a whole. They are specific beliefs about the central notion raised within the discussion.

The organizing themes, as the name suggests, are clusters of signification that organize the basic themes and summarize them. The global themes are the general claims that advance the question of the general meaning of the text as a whole. In this analysis, in addition, there is another level represented by the 3 macro-areas on which the discussion was conducted on. Beyond my indications on the specific areas, participants led the conversation preferring themes that in their opinion were more important than those recommended by me.

More specifically, they devoted less importance to 2 of the 3 macro-areas I proposed: team formation for cognitive areas and fragility of a virtual network. In relation to the team creation, they quickly concluded that it would not have been possible to realize only one general criterion, but that I should have chosen the best regulations according to the individual situation. About the fragility of the virtual network (the less debated theme), the immediately accepted proposal was that of providing

strong networks with some gates and thereafter arrange face to face meetings. The other rules and organizational mechanisms would have been enough to reduce the abandon risk.

Thanks to the focus group dynamics I took a step forward in my research on the topics that were not yet well-defined in the literature and from the standpoint of people's daily involvement within those matters. Moreover, if on one hand the participants underestimated the importance of some themes, on the other they manifested the importance of concepts that I did not accurately consider myself in the research (i.e. the added value due to 3 smart databases, the definition of clearly differentiate objectives for simulation and research and the re-definition of the aspiring entrepreneur's role in terms of activity). Thanks to the new emerging themes I have been able to realize a platform following a stronger idea about the different issues.

The thematic network analysis scheme is summarized in the appendix.

## RESULTS

Following the evidence and the information that I gained from the focus group, I designed a platform based on the suggestions.

In relation to the risks related to a virtual network, the discussion was quickly solved by entrusting the solution to the physical meetings that should be planned at specific gates. This solution finds confirmation in the literature, according to which there are several risks related to the virtual teams and different solutions to avoid them. Nunamaker et al. 2009 indicate different principles for effective virtual team, which can be summarized in: reward structure, control system & attention focus, explicit and well-defined deliverables and work processes, establishment of a virtual presence. All these principles are able to reduce the risk of abandon and low commitment. Other researches have pointed out the importance of well-defined processes and face-to-face occasional meetings, in order to reduce the risks related to "dispersion" (Siebrat et al. 2009). Following the literature and the group outcomes, I adopted the stages and gates model (Cooper 1994) which is able to include both the accurately defined processes and face to face meetings. The analysis is well structured due to the partial stages that are able to process the idea step by step; this way of organizing the daily job facilitates the possibility to arrange meetings based on the gates provided.

One of the most debated themes was value appropriation and regulation of relationships. The major sources of concern were: why should human resources put their knowledge at the service of the platform? How should we protect the idea producers? How should we remunerate people and, at same time, ensure a non-disclosure condition?

The knowledge economy introduces something radically new in the mechanism of value production: the way knowledge assets create value is really different from that of physical assets (Boisot, 1998;

Rullani, 2004). While physical resources and embedded, tacit knowledge assets, by virtue of their spatio-temporal locality, present an irreducible level of scarcity which helps to make them appropriable, explicit knowledge is subject to complex appropriability problems. For this reason, knowledge exchanges cannot rely on traditional market dynamics, as the mere description of a knowledge asset, necessary for its exchange, partly transfers it, making it available to potential buyers who could use it without paying properly. This highlights an important cognitive issue related to experimental labs, i.e., the need for value appropriation by the adoption of mechanisms allowing members to extract value from the knowledge they contribute to generate and the activity of the start-up firm benefiting from it. While on the one hand it is important to support externalization processes, on the other hand it is necessary to provide experimental labs with isolating mechanisms in order to sustain knowledge sharing within the network, thus leveraging partners' knowledge assets and fostering start up activities. According to both Rullani (2004) and Boisot (1998), in order to keep sustainable the process of new knowledge creation, it is necessary the existence of some mechanisms allowing knowledge producers to appropriate an adequate part of the value they contributed to generate, i.e., some mechanisms stimulating, on the one hand, and governing, on the other, knowledge diffusion in order to keep the process of knowledge creation sustainable. It is therefore fundamental, when planning and implementing the functioning of an experimental lab, to provide it with ad hoc mechanisms which bring about the production of value through knowledge exchange and creation by means of members interactions. In order to allow this difficult balance between externalization and appropriation, the suggestion has been to provide the platform with common mechanisms in project financing, business angel network and spin-off regulations, which regulate the relationships by determining fixed rules. In the "work for equity", I identified the principles as a good solution, importing directions and restrictions from the fields suggested (project financing, BAN, spin-off regulations). In a nutshell work for equity, a bottom-up phenomenon (increasingly common in the start-upping), is the opportunity to become a partner or receive a company's financial instruments instead of earning a formal remuneration. Indeed, the achievement of personal goals for each member of the group is an important matter in the virtual team (Curley and Formica 2008, Nunamaker et al. 2009, Siebdrat et al. 2009) and the work for equity allows a balance between participation and remunerations. The experts in the focus group did not spend much time debating about the team composition (other macro-area suggested), rather, they drew their attention on the venture sitter's role and their relationship with the aspiring entrepreneur. Leadership is an important feature also in the open, spontaneous community. The team's temporal leadership moderates the relationship between temporal diversity and the team's performance in such a way that time urgency and pacing style diversity exert a positive effect on the team's performance (Mohammed & Nadkarni 2011). More

broadly, the team's behaviour can be divided into four useful subcategories containing specific dimensions (Perry E. E. et al. 2013): preparation of task accomplishment (team mission analysis, goal specification, planning), task-collaborative behaviours (coordination, cooperation, and information exchange) team adjustment behaviours (back-up behaviours, intra-team coaching, collaborative problem-solving, and team practice innovation) work assessment behaviours (performance monitoring and systems monitoring). In order to comprehend the possible implications for the performance, the discussion mainly focused on three of these categories (preparation of task accomplishment, task-collaborative behaviours and work assessment behaviours). The group purpose was to shed light on the importance of the relationship between the coach/mentor (venture sitter) and the aspiring entrepreneur; only a well-balanced relationship, team composition and diversity can positively influence the performance. From this perspective, it is clear that there is not just one best way to compose the perfect team for several different reasons. Therefore, I reconsidered the aspiring entrepreneur's role by providing a more dynamic activity. Concretely, I resized the venture sitter's function in order to mold him into an advisor and change him into a figure between a mentor and a coach who helps the aspiring entrepreneurs without replacing them. Following the focus group, every function previously entrusted to the venture sitter has been reviewed and assigned to the aspiring entrepreneur who performs it under the venture sitter's counselling. Consecutive to this path, I hypothesized a team composition model in which aspiring entrepreneurs and their venture sitters define the different cognitive areas on which to organize the job. Both roles are going to select human resources (which, how and how much) to assign to each area; they define timing, goals and assess and the group's job step by step. In addition, during the whole process, the human resources are going to communicate with the aspiring entrepreneur.

## CONCLUSION

The organization of a focus group with experts in the fields of entrepreneurship and innovation has been an important part in the research development. Thanks to a non-structured discussion, participants have raised the strengths, weaknesses, opportunities and threats of my design model, allowing improvements and drawing the platform in a more complete and useful way.

In the attempt to analyse the accuracy of the dynamics of the different phases on which I have structured the daily work in the experimental lab (in terms of groups' structuring, relationships, remuneration system, stage & gate), the simulation could also be a way of verifying the effectiveness and efficiency of the platform. Starting from the evidence provided by the virtual team literature about the importance of leadership (Mohammed & Nadkarni 2011), a well-defined work processes and the regulation of members' relationship, (Nunamaker et al. 2009; Siebrat et al. 2009) I attempted to

refine the design of the experimental lab based on the focus group outcome. Throughout the discussion, I led the attention on the daily dynamics and, more in particular, on the team creation, the risk of virtuality and value appropriation matters. These were all relevant issues that had not yet been covered within the experimental lab literature, which instead focused more on the general dynamics in an open ecosystem and on the venture sitter role (Andersson et al. 2009; Curley & Formica 2008, 2012; Matricano & Pietrobon 2010).

The platform may represent for the University one of the instruments to favour entrepreneurship, by increasing the capabilities possessed by the latter. However, capabilities are built over time and cannot be implemented simply by setting up structures and policies. Universities are characterized by high complexity, therefore different initiatives may be needed to build the necessary capabilities (Rasmussen & Borch 2010). In particular academia demands both top down pushes (institutional initiatives, structures, professors with a managerial backgrounds) and bottom up, spontaneous pulls and stimuli from students interested in entrepreneurship.

The platform is a tool that wishes to balance the top down and bottom up phenomena. Although it is a structure created and proposed by the university itself, it can survive only through the students' effort. As a result from the experimental labs, the universities are successful in facing the second revolution: the critical step that leads to embrace the third mission. With this leap that brings Academia to be something more compared to the ordinary systems of today and in the light of this new fundamental entrepreneurial function, the goal may become the institutionalization of the experimental lab. This research seeks to make a contribution in shaping the functioning of an experimental lab in the daily work by taking a step forward in defining the interactions amongst venture sitter, human resources and the aspiring entrepreneur. I hereby identify in the work for equity a way to balance externalization and appropriation mechanisms, suggesting a stage & gate structure and face to face meeting in order to handle the risks related to the virtuality.

The purpose to provide an effective and efficient tool in the academia revolution is ambitious and more work has to be done; the simulation will bring out the weak elements from which to draw and model future research in terms of: team composition mechanisms, relationship between participants, role of the university, value appropriation rules daily dynamics.

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**APPENDIX: THEMATIC NETWORK ANALYSIS**

Basic Themes	Organizing themes	Global themes	Macro areas
Intellectual property protection	Relation between value appropriation and idea protection	Balance benefits and costs	Value appropriation and regulation of relationships
It needs to figure out how to manage the appropriability risk			
Everyone needs to have its own benefit	Trade-off participating/cost of participating		
Who owns the final start-up?			
It is an entrepreneurs' conscious choice waiving a portion of their paternity and revenue.			
It is important to figure out who takes the economic risks	Costs management		
There might be an entrance fee			
Return of the management costs			
What is the profit?	Motivation to participate		
Efforts must be remunerated			
More people collaborate more shares have to be sold	To remunerate participants		
It should be provided an ex-ante regulation			



Sure remunerations reduce the risk of abandonment	Remuneration e commitment	Open innovation e closed rules	Virtual network fragility		
Exploitation of open innovation model	Open innovation model				
Rules and norms turn away from open innovation					
The strength is in the 3 databases	The 3 databases are the project strength	The added values lie in the 3 smart databases	X		
The 3 databases are mobile, virtual and dynamic					
They are intelligent databases					
System administrator should manage to exploit its own relationships network	Administrator exploits its relationships network				
Administrator is not a simple database manager					
There are the service agreements of project financing	Being inspired to similar services				
There are the Business Angel Network rules					
Aim of the platform	Aim to reach by this tool			Aims	X
Aim of simulation					
Scheme clarity					
It experiments the experimental lab					

Knowledge diffusion do not occur by venture sitter	Communication Entrepreneur- VentureSitter-HR	Aspiring entrepreneur's role	X
HR cannot communicate with entrepreneur only by Venture Sitter			
Aspiring entrepreneurs cannot be too passive	More activity for the aspiring entrepreneur		
The aim is improving the entrepreneurs' entrepreneurial capabilities			
The entrepreneurial ideas cannot be a list that disregard those who propose them			
It should be the entrepreneur to select the Venture Sitter			
There are analogies with virtual teams	Team creation	Groups' organization for cognitive areas	Groups' organization for cognitive areas
You cannot establish 1 perfect team for so many different ideas			

## DYNAMIC CAPABILITIES – FROM THE PERSPECTIVE OF SUBSIDIARIES IN EMERGING MARKETS

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### ABSTRACT

Many multinational companies (MNC) have subsidiaries in emerging markets to tap on the local resources and marketplace. These subsidiaries navigate the changing requirements in local environment, while juggling to meet the performance expectations of their parent organizations. Due to market volatility, subsidiaries increasingly play vital roles in helping organizations mitigate business challenges and generate firm-specific dynamic capabilities in the process. This study taps on in-depth interviews with seasoned subsidiary managers based in fast-changing emerging markets in Central America and North Asia, to understand the roles of the subsidiaries and the underlying mechanisms and values that subsidiaries in emerging market bring to the parent organizations. Findings from these interviews revealed that subsidiaries at different stages of organization developmental phases utilize various forms of dynamic capabilities and the importance of transnational management strategies in subsidiaries to attain sustainable competitive advantages. The study emphasizes on discovering the common critical success factors in well-established multinational companies that help built sustainable and productive subsidiaries.

***Keywords:** Dynamic Capabilities, Exploration, Exploitation, Subsidiaries, Organizational Learning, Entrepreneurial Leadership, Corporate Culture, Empowerment, Competitive Advantage, Transnational Management*

### INTRODUCTION

MNCs expand for multitude of reasons, often setting up subsidiaries in emerging markets outside of home country. The roles of subsidiaries support the parent company's desire to seek new markets to diversify their business risks, groom new sources of revenues and seek new resources for sustainable future growth. Thus, subsidiaries are pivotal instruments for MNCs to horn multidimensional capabilities (Bartlett, C. A., and Ghoshal, S, 2002) for the sake of business continuity. Furthermore, new emerging markets are perceived to hold munificent opportunities for multinational corporations to build new capabilities to complement its current organizational capabilities. The organization's need to stay ambidextrous in meeting changing market demands, carve out new competitive advantages to

differentiate from the competition, explore new markets for existing product lines and to exploit current organizational capabilities, has and will persist to stretch the capabilities of multinational firms today. As pointed out by O'Reilly, C.A., and Tushman, M.L. (2013), "In uncertain environments, organizational ambidexterity appears to be positively associated with increased firm innovation, better financial performance, and higher survival rates."

In this research, detailed interviews were conducted with seasoned subsidiary leaders to understand how the subsidiaries of multinational firms navigate in the emerging markets where both institutional and market volatilities are acute. The insights shared by these subsidiary leaders could unveil the effects of dynamic managerial capabilities of MNCs in shaping the strategic directions of the subsidiary firms. Hence, the research objectives of this study are twofold. Firstly, to reveal the business strategies adopted by subsidiaries and their parent companies in managing business challenges. And to specify which dynamic capabilities were engaged more actively by subsidiaries in building business resilience for sustainability in the emerging markets they operate in.

## **LITERATURE REVIEW**

Industrialization and globalization intensify the competition for MNCs and calls for organizations to put on the resource-based view hat and develop organizational capabilities to remain competitive in the marketplace. Pioneering scholars proposed that competitive advantages was based on "creative destruction of existing resources" (Schumpeter, 1934) which progress to configuration competence (Henderson and Cockburn, 1994) and then to combinative capabilities (Kogut and Zander, 1992). Teece, D. J., Pisano, G., and Shuen, A. (1997) developed the concept of interactive and adaptive set of "dynamic capabilities". More recently, dynamic capabilities serve as the bases for studies in international expansion (Luo, 2001) and subsidiary initiatives (Wang, C.Y.P., Jaw, B.S., and Chang, Y.H., 2011). This study aims to find out which dynamic capabilities were more actively engaged in building business resilience for market sustainability in subsidiary firms.

### **Subsidiary Dynamic Capabilities**

The dynamic capability perspective proposed by Wang et. al. (2011), an adaptation from Luo (2001), posited that the possession, deployment and upgrading of organizational capabilities must continue to be rejuvenated through learning derived from local context. The dynamic capabilities generated through learning in the local context of the subsidiaries must integrate well at a global level for organizational-level competitive advantage to take place. Despite being located in different emerging markets and having varying length of establishment, a common view shared by the subsidiary leaders during the interviews concur that dynamic capabilities take on the form of a firm's core competences

and must be adaptive to changes in the marketplace. Furthermore, dynamic capabilities are firm-specific and require active and continuous interactions of organizational resources to be developed and built on. Pavlou and El Sawy (2011) breaks down dynamic capabilities to four capabilities that are interrelated, namely sensing, learning, integrating and coordinating capabilities, being exercised simultaneously to sustain momentum in organizational growth. Given the clear composition of dynamic capabilities, multinational firms can specifically and strategically gear up the competencies of its subsidiaries accordingly in different markets. Firms deploy different management strategies in building up the operational capabilities in each area of dynamic capabilities to better utilize the available local resources to meet market demands.

### **Transnational Management Strategies and Organizational Learning**

Management at MNCs recognize that the subsidiary managers have to make prompt decisions to address environmental changes, especially so in the vibrant emerging markets. While the resource-based view by (Makadok, 2001) highlight on the selection of right resources, dynamic capabilities on the other hand, emphasize on reconfiguration of the resources into operational capabilities. Dynamic capabilities building will require organizational learning where “Exploitation learning involves selecting, implementing, and adapting systems and capabilities that are already available...” and is for a firm’s short-term survival (S.E.A. Dixon et al. 2010) whereas, exploration learning is to ensure the firm possesses strategic flexibility to function in an ever changing environment (Hitt et al., 1998). Effective knowledge-in-practice is contingent to putting in place organizational practices that best fit the work environment in order to drive performance (McIver, Lengnick-Hall, Lengnick-Hall and Ramachandran, 2013). Therefore, there is close engagement between subsidiary firm and MNC parent companies to switch to the most appropriate organizational learning mechanism quickly, to expedite fine-tuning processes in order to remain highly responsive to the fast-changing marketplace.

Subsidiaries are expected to be active contributors of firm-specific competitive advantages to the MNC (Birkinshaw, Hood and Jonnson, 1998); a key strategy for transnational management is the managing of knowledge stock from various subsidiaries. Studies have demonstrated that the knowledge base of a firm can be a source of sustainable differentiation for the organization to develop its set of inimitable competitive advantages (Gupta and Govindarajan, 2000). While the strategies of exploration and exploitation is no surefire success in business performance nor would the firm’s corporate longevity, the habitual use of these strategies become firm-specific capability for the subsidiary to manage its business challenges. As Levinthal and March (1993) suggested “engage in enough exploitation to insure the organization current viability and engage in enough exploration to insure its future viability”. The capacity for a subsidiary to learn through its business challenges and the use of exploitation and exploration strategies will thus enhance dynamic capabilities.

The appointment of the right subsidiary leaders is an integral part of transnational management. DeSimone, R. L., and Werner, J. M. (2011) proposed that a change manager is someone in the organization who has "... the overall responsibility for accessing the need for change, determining the appropriate intervention activities, implementing the strategy, and evaluating the results." The subsidiary leaders act as the change agent for headquarter, and are responsible to drive subsidiaries to perform according to assigned strategic roles and responsibilities. As Kor and Mesko (2012) highlighted, one can appreciate that the importance in deploying the appropriate subsidiary leaders as they are part of the "complex interdependencies between the firm's choices in business and competitive strategy and its choice about managerial resource development and deployment practices and investments." The right subsidiary leaders have to be efficient boundary spanners as a country manager given that "...70 to 80 percent of the boundary spanning activities in a large formal organization were carried out by leaders." (Costley and Howell, 2001)

Roger Gill (2002) proposed the notion that change management requires effective leadership that embodies an "integrative model of leadership" which comprises of "vision, values, strategy, empowerment, motivation and inspiration." Thus, many MNC headquarters supports the setting up of a corporate culture through the subsidiary leadership. This also provides a stabilizing effect for subsidiary firms to perform their roles. Scholars such as Kotter and Heskett (1992) have pointed out that corporate cultures are not static, and can have powerful impact on business performance. The effect of corporate culture can "...enable a group to take rapid and coordinated action against a competitor or for a customer." In an article on "Good to Great", the authors highlighted that "Great companies have a strong culture that fosters productive behaviours. Whether "customer-service focused," "earnings-per-share driven," or "innovation centred," the culture guides how employees think, what they do, and what outcomes are attended to." (Evans and Butler, 2011)

## RESEARCH METHOD

Two studies were conducted with three case companies in each study. The first study took place in December, 2012 and the second study, six months later. Semi-structured interviews were conducted lasting one to two hours each were arranged to attune the interviewees to the research topic. A set of questions were sent to interviewees upon their permission to participate in the study. Each interviewee was given a week to provide firm-specific responses to the questions and a scheduled face-to-face discussion or conference call was arranged thereafter for clarifications and further extraction of managerial insights. The interviewees were selected based on the functions they were accountable for and were in positions of authority to be actively engaged in the formation of corporate strategies which

have direct influences over the roles of the subsidiary firms and in turn impact the various dynamic capabilities deployed.

The case companies are at varying stages of organizational transformation, and they are major players in their respective industries including oil and gas, chemicals, electronic parts, synthetic rubber and plastic products as well as building and industrial systems. In the first study conducted in December 2012, the three case companies were subsidiaries of companies of more than a century old. The three case companies were located in India, Taiwan and Mexico with parent companies of North America or European origins. With the findings from the first study, a second study was conducted in July 2013, with subsidiary companies of parent companies established in the 1960s to 1970s, located in second-tier cities of Mainland China. The parent companies of case companies in study 2 were from Taiwan. The intent of study 2 is to learn if the same strategies and dynamic capabilities were also tapped to develop business resilience with subsidiary firms in a fast-growing emerging market such as China.

### **Case Company Profile**

The case companies chosen were based on a few criteria, such as if the subsidiary firm has well-established parent company located in developed countries while it is located in an emerging market. Also, to detect the dynamism of adapting to changes, these subsidiary firms were undergoing significant business challenges within the short-term outlook. Questions were also asked if the Country Managers were veteran managers within the MNC and/or industry and the length of their expatriation in the emerging market.

The corporate headquarters of the case companies had put in place seasoned country managers who were overseeing specific changes to meet business goals. Each case company were contributing exceeding USD 100 million per year to the parent company in revenue turnover, and are positioned strategically to run the operations in regional markets. All of the subsidiaries have sales and manufacturing functions in the emerging markets.

## **ANALYSIS AND FINDINGS**

### **Relationship of Dynamic Capabilities, Subsidiary Leadership and Learning Culture**

*Study 1: Subsidiary firms in emerging markets with MNC parent companies of more than a century old.*

#### **Company A**

This India subsidiary firm main business is in building and industrial systems. It was formed through merger and acquisition eight ago. The German parent company is a conglomerate powerhouse with many lines of business and was seeking another potential market in Asia to set its foothold, and bought two Indian companies. Before the current country manager was expatriated two years ago from the USA to integrate the India subsidiaries and to stem high employee turnover, this subsidiary was very

much left on its own. There are thirty-two sales offices situated throughout India and the parent company was gearing up the subsidiary for a manufacturing plant to exploit its technological capabilities and skilled labour market.

The Country Manager admitted to continuously use his sensing and learning capabilities to steer the local company to position itself for exponential growth. The Country Manager not only has to align the operational capabilities of the thirty some local offices to deliver business performance, he also has to integrate and coordinate with the parent company to align strategic goals and tap on the resources and existing operational capabilities to giving the subsidiary a head-start against local competition, a goal made more challenging as the various offices are integrating to the corporate culture of the German MNC.

#### Company B

This Mexican subsidiary is also in the building and industrial systems business. It has been in the Central and Latin America for over twenty years and has management responsibility over the regional sales offices in seven countries. The parent company is based in the United States of America. The Managing Director is a seasoned manager with eighteen years tenure in the organization and is originally from Mexico City. He plays a pivotal role bridging the subsidiary with parent company and amongst the regional offices as there are diverse cultures and market requirements in the region. The Managing Director has to be sensitive to the peculiarities of the regional markets and effectively escalate unique requirements to headquarters level for R&D support. His work day is mostly spent coordinating and integrating activities with parent company and intra-regional. The Managing Director revealed that the parent company has a well established corporate culture in sharing best practices on a world-wide basis. This learning culture motivates this MNC to regularly cross-share information. The stable corporate culture provides a reassuring environment to its subsidiary employees to focus on local market responses.

#### Company C

Of the three case companies in study 1, this private Taiwanese chemical company with manufacturing facilities has the highest per head revenue of US\$7 Million. This is a sixty year old joint-venture (JV) firm between a European and Taiwanese company. The challenge for this subsidiary firm is to maintain optimal business performance while motivating its staff to keep up the productivity till the closure of this subsidiary within the next two years.

The corporate culture of this JV is greatly influenced by the local parent company. The interviewee is an expatriate from the European parent company so his observations of how the local JV company functions offer a different perspective to the JV company. The local top-management team (TMT) closely monitors the operational activities and manages the morale of the workforce. Regular



discussions and reporting to update parent companies and to integrate knowledge and coordinate operational activities are carried out to continue to align corporate goals. The TMT of Company C also enjoys the highest level of autonomy and empowerment amongst the three companies and has almost no attrition in its staff strength for years. While the TMT are abiding to JV policies and is highly influence by the government-link Taiwan parent company, the TMT exhibited great resilience in managing the challenges presented by the imminent closure.

In study 1, mature subsidiaries (companies B and C) have well-established and stable corporate culture which allows them to focus in pushing for business performance by utilizing more integrating and coordinating capabilities. A product of two acquired local companies, company A needs setting up of corporate culture, especially learning culture to reap incremental performance through knowledge sharing. A stable corporate culture sets the platform for a subsidiary to cross-share best practices and cultivates a learning culture throughout the organization. The learning culture is the catalyst for the corporate to renew and fuel dynamic capabilities, so that integrating and coordinating capabilities can be organized to generate higher value for the firms. As the Managing Director of company B said *"...our company has a very strong cross-sharing culture and while we exploit our worldwide best practices to provide localised solutions, the adaptations we made do not compromise our core values and corporate culture...and that helps us to stay ahead of competition"*

The appointed country manager in the emerging markets has to possess a sharp acumen (ability to sense), entrepreneurial spirit (can-do attitude) and resilience in managing uncertainties to steer the subsidiary firms towards organizational goals set out by the parent company. This is demonstrated by all three interviewees in the case companies where they were put in place to "make things happen". In Salvatore Maddi's research (2004), people who work well under pressure and constant changes has three key attributes, namely knowing they have control or influence over what they do, commitment to something that they feel has importance and viewing changes as exciting challenges. The leaders of the subsidiary firms of these three companies exhibited these attributes and believed that their role in the emerging market is significant in shaping the directions of the subsidiary firms. From the interviews with the subsidiary leaders in study 1, these managers who helm the realm at the subsidiaries have mandated changes and through their leadership, directly enhanced the dynamic capabilities of the local entity. As the country manager of company C puts it *"...companies are dynamic because of the business environment, the context it is in, and it has to constantly adapt. And....leadership helps to steer the direction for changes"*.

### **Parent Company's Strategy to build Subsidiary Dynamic Capabilities**

Since the case companies were at different stages of organizational development, the dynamic capabilities more actively used by each of them to function effectively in the emerging markets were

also different. The supportive role of the parent company includes providing expertise in R&D, expatriation of TMT members to the subsidiaries, training and developmental programs and institutionalizing sets of best practices and policies for governance and performance evaluation systems. The subsidiary firms internalize the rendered resources and reconfigure aptly to response to the market. In addition, the parent companies also assign appropriate level of autonomy to the subsidiaries and empower the subsidiary leaders to make timely responses to the local market.

Parent companies put in place suitable candidates to take charge of the subsidiary firms as a managerial strategy so that these overseas arms will contribute positively to the organizations and complement headquarters' set of dynamic capabilities. In the instances of the case companies, the subsidiary leaders demonstrated that they have the vision, shares corporate values, align their organizational strategies, motivate and inspires their co-workers in the emerging markets and are given empowerment from the parent companies to enable changes.

### **Assimilation of Parent Corporate Culture and Local Culture**

The alignment of parent company's culture and that of subsidiaries is critical for the organization to grow in organizational resilience to business challenges. As shared by the country manager for Company C *"Changing the overall culture of a company while conducting business and meeting budget has been an interesting balancing act. Focus, clear communication, consistency and tenacity are a must."* The analysis of the three case companies in study 1 indicated that each uses its own blend of dynamic capabilities to response to the parent companies and to the local market needs. Because companies B and C have reached maturity in the emerging markets, the engagement of sensing and learning capabilities appear to be less than company A which is newer to the local market. Stable and mature corporate culture, especially the learning culture which was most prominent in Company B, must be embedded in the day-to-day operations for subsidiaries to develop organizational capabilities. The combination of local culture and that of what parent company corporate culture is has produced a magical formula. This leads to better utilization of local resources and global practices to form a set of dynamic capabilities or competitive advantages that are firm-specific and unique to the subsidiary.

To summarize the findings in Study 1, corporate culture with a strong endorsement to learning culture lays the foundation for subsidiaries and parent companies to adapt to changing environment, as a stable corporate culture facilitates the building of new capabilities. MNC deploys appropriate subsidiary leaders with entrepreneurial-orientation and empower them for timely response to market and these subsidiary leaders in turn steer the subsidiary firms to meet performance goals and helps to foster integration of corporate and local cultures.

*Study 2: Subsidiaries in China with MNC parent companies established in the 1960-70s.*

### **Company D**

This is a chemical plant located in Jiangsu province with twenty years presence in China. It is one of a dozen of subsidiaries that the Taiwan parent company has set up in Mainland China for sales and manufacturing purposes, tapping on the huge market potential and vast resources that China has to offer. The managing director is from Taiwan and has stationed at several subsidiaries throughout China for the last eighteen years. He has vast knowledge in the industry, having worked his way up from the R&D department to the local TMT position. His intimate knowledge of China as well as technical expertise made him a valuable asset to the parent company. The subsidiary leader is given full autonomy to run the subsidiaries. His opinion of the competitive advantage of the subsidiary is to create value in the market by staying a step ahead of institutional requirements. He exploits the technical expertise of the parent company and simultaneously explores what are the market requirements and setting up processes and technology to provide high standard for the China subsidiaries to execute well.

#### Company E

This subsidiary is situated in Kunshan, China for over fifteen years. It is a manufacturer of electronic materials. Its parent company in Taiwan has businesses in many types of industrial materials. The country manager has been in China for close to thirteen years and he emphasizes management of operating costs through continuous process improvement. He has had 2 years stint in the R&D department. His view on dynamic capabilities is in managing the entire product lifecycle and designing the manufacturing processes optimally to balance costs and potential revenue. Due to frequent updates on various standards for green and environmentally-friendly products by global clients and local government, he spends much time on intra-company and inter-company communications to align standard measurements and operational processes. Optimal exploitation of existing technologies to minimize incremental costs is utmost important in his operation and exploration of new clients or new applications are equally important to command a price premium.

#### Company F

This subsidiary is a manufacturer of synthetic rubber and plastic products based in an industrial zone in Jiangsu province, China. There are six subsidiaries within China set up in the past twelve years. The general manager believes that by taking good care of the subsidiary employees, and they will in turn provide good customer-service and generate quality and safe products. Being environmentally and socially responsible is part of the corporate culture to help the subsidiary stay deeply entrenched in the community, thus paving its way for sustainable growth. In addition, this subsidiary conducts a lot of internal training to enhance the skills, knowledge and attitudes of all levels of its employees. This combination of being part of the community and equipping employees from all levels with training are strategies that work well for company F. The general manager was proud to mention that “...more than

*a quarter of staff exceed ten years of tenure with the firm*", which speaks volume for organizational commitment in China where high attrition is commonplace.

### **Market Initiatives and use of Exploitation and Exploration capabilities simultaneously**

In study 2, the case companies' subsidiary leaders echoed the view on their leadership and the empowerment warranted in providing the direction for the subsidiaries and to responding speedily to the market, deem as competitive advantage.

As China is a relatively collective society, integration of cultures is very important. In China, the deployment of highly skilled Chinese-speaking Taiwanese TMT is seen as an effective transnational management strategy as this economy has high respect for managers who have seniority and expertise, and more importantly understands the Chinese culture and how the society works. Moreover, the Taiwanese TMT also pointed out the high level of institutional effects in China, and the need to proactively response to local government requirements to secure business sustainability in the market. The display of organizational ambidexterity in switching between exploration and exploitation approaches in securing a favorable market position and making appropriate response to stakeholders are actively carried out. Thus, these unique insights from the subsidiary leaders acknowledged that market initiatives stimulate the subsidiary firms to accumulate and build on the relevant dynamic capabilities, simultaneously using both exploitation and exploration capabilities.

Despite differences in national culture, industry types and the history of the parent MNCs, findings from these six case companies in the two studies suggest that there are more commonalities than there are contrasts. The commonalities include the authorization of capable subsidiary leadership with the right empowerment in managing the local entities so the subsidiary leader can be an effective change manager to provide timely responses to the market. MNC also have the talent resources to place the suitable country manager at the subsidiary to drive its desired performance. In addition, the parent company renders subsidiary support via shared core values through corporate culture and learning mechanisms to facilitate knowledge flow and synchronization of operational activities to meet business objectives. The subsidiaries internalize the support from parent company and combine with local resources, uses both exploration and exploitation strategy to formulate the subsidiary's firm-specific competitive advantage. The contrasts amongst the case companies emphasize the importance of being responsive to the market with the deployment of market-oriented initiatives, especially for emerging markets with strong institutional effects to ensure sustainable growth for subsidiaries. Finally, case companies which displayed greater cohesiveness in integrating parent company culture with the subsidiary's local culture has a head-start in their participation in the competitive economy of these emerging markets.

## CONCLUSION AND RECOMMENDATION

The two studies produced findings that provide evidence for active and complementary use of transnational strategies and dynamic capabilities in dealing with uncertainties and challenges in the marketplace. Firstly, the subsidiary leaders were instrumental conduit for the parent company to provide direction and clarity in leading the subsidiary to meet the business challenges. Subsidiary managers possess entrepreneurial leadership (ability to sense, “can-do” spirit and resilience) and are effective change managers. They have the capabilities to see the big picture with the long-term strategic organizational goals in mind while having the ambidexterity to handle the operational issues to meet short-term business survivability.

Next, establishing a learning culture and being attune to market initiatives help the subsidiary build its firm-specific dynamic capabilities. A corporate culture that celebrates the learning culture is a cornerstone for building new capabilities and exploration of new breakthroughs. This finding supports and infers that a learning organization will be able to adapt quickly to the changing environment and thus increase competitiveness to meet changes in local markets. Meanwhile, another business strategy for transnational companies is to proactively take on market initiatives in response to its environment. These market initiatives are stimulus for subsidiaries to build relevant dynamic capabilities to timely response to the market. This finding is especially important in the emerging market due to greater volatility in market forces. The market uncertainty calls for subsidiary to be adaptable and nimble in responses.

To specify which dynamic capabilities were engaged more actively by the subsidiaries so the local entities are more resilient in their operating environments, the respondents of these case companies unanimously mentioned that they must be given suitable empowerment to exercise change for timely and context-specific response to the market. After which, certain degree of corporate culture integration between parent and child companies will enable faster development of dynamic capabilities to help them be competitive. This integration requires a harmonious blend of both headquarter-driven corporate culture with local interpretation for effective internalization, without compromising the core values. While, building up competencies, the subsidiaries adapt a set of exploration and exploitation capabilities to keep up the momentum for growth. These two capabilities are used simultaneously but the proportion is tailored by the subsidiaries depending on the event on hand.

### Managerial Implications

As MNCs race to gain market share and to increase productivity with as little incremental cost as possible, many organizations may overlook the need to help the workforce increase their learning capabilities through training. This is because nurturing talent from within a subsidiary takes many years. Failure to do this however, will risk the stagnation of skill sets and therefore limiting the

capacity of the subsidiary workforce to be adaptable to changes in business requirements. Moreover, training may help the local workforce to feel more entrenched in the organization, thus may ease turnover rate of knowledge workers which is prevalent in emerging markets such as Mainland China and India. In this case, subsidiary dynamic capabilities and organizational resilience may grow with a stable knowledge-driven workforce.

Another managerial implication is the need for the subsidiary leaders to build a capable local management team. Given that the country managers and TMT for the case companies are foreigners or expatriates to the local companies, there could be sentiment that these leaders are not sinking roots and will not be present to see through the changes in the long run. Hence, some subsidiary staff may be resistant to changes and choose not to share relevant information. The coaching of a local management team will help subsidiary beef up on managerial capabilities and these home-grown leaders can contribute and guide the local workforce to align with corporate goals.

Finally, due to cultural diversity, the subsidiary leaders sent to manage the subsidiaries could enhance his ability to lead by going through cultural immersion training to accustom his communication and leadership style to the local context. MNC could consider cultural immersion program as a prelude for potential subsidiary leaders to help him to hit the road running by boosting his competence to integrate corporate culture with national culture.

#### **Further Research Suggestions**

As multinational corporations continue to look for new markets to extend their product lines, race to compete for market share, expand its competitive advantages beyond current capabilities, firms may not pay enough attention to long term goals and instead settles for short term gains. Since increasing dynamic capabilities is critical in sustaining corporate competitiveness to push for business performance and ensures sustainable growth, then the studying of learning mechanisms can be further explored to identify appropriate organizational learning strategies at different phases of organizational development.

It will also be interesting to find out about the different leadership styles in different countries with strong national cultures to identify the most appropriate subsidiary leader for MNC to groom and to leverage on for its talent bank. Future study on subsidiary leadership could include case companies from more emerging markets.

This study included case companies with manufacturing facilities and industrial products. Future research could be conducted to include service-oriented subsidiaries, such as the hospitality industry to find out if the strategies used to grow dynamic capabilities are similar.

Finally, another direction for future research is to follow these case companies to conduct a longitudinal study to see if there is any development in the dynamic capabilities due to differences in subsidiary roles or contextual changes.

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## THE INVESTMENT ATTRACTIVENESS OF UKRAINE: OPPORTUNITIES AND RISKS FOR FOREIGN INVESTMENT

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### ABSTRACT

The article investigates the definition of "investment attractiveness" and factors that form the investment attractiveness at different levels of the economy. The factors system was established that determine the favorableness level of the investment climate. The structure takes into account: the objective factors; investment climate formation under the totality influence; the investment climate differentiation at different levels of the economy; synergies characteristic of investment climate; inclusion of the investment climate in the institutional system of the state; appearance of various risks as a result of certain conditions.

The main factors that affect the investment climate and investment attractiveness of Ukraine are: macroeconomic instability, due to the numerous risks of investing in the country, the low level of protection of foreign investors, which negatively affects the image of Ukraine and imperfect legislative regulation that negatively affects the profitability of investment, corruption and blocking foreign investment.

In order to improve the investment climate and investment attractiveness of Ukraine proposed urgent measures for improving the methodological basis for evaluation of investment attractiveness. Organizational-economic and legal mechanism of favorable investment climate formation in the region is worked out and described. This is consciously regulated system of economic, legal, organizational forms, methods, means and principles, as well as the regulated by state relations and interconnections which impact on the investment climate in the region. The mechanism is aimed to reduce investment risks and increase of investment potential in the region.

The research also proposes measures for improvement the investment attractiveness of Ukraine.

**Keywords:** *investment attractiveness, investment climate, foreign investment, international rating agencies.*

## **INTRODUCTION**

The investment attractiveness of Ukraine is a strategic issue, as it stands in the way of economic reforms and integration into the world economic sector, which, among other issues, require significant financing. To solve this issue the country should create a favorable investment climate and reach the status of the investment-attractive country.

## **ANALYSIS OF THE RECENT RESEARCHES AND PUBLICATIONS**

The study of this problem was engaged by many scientists and scholars: G. Alexander, J. Bailey, D. Epstein, P. Haidutsky, D. Harrison, N. Ighoshyn, K. Meyer, O. Nosova, W. Sharpe, J. Thompson. The following scholars as S. Aptekar, M. Bilopolskiy, I. Blank, M. Chumachenko, N. Datsiy, V. Gluschenko, V. Grinyova, P. Haidutsky, N. Hrebenuk, I. Ivakhnenko, S. Ivanochko, O. Lemishko, M. Lesechko were dealing with the problem of attracting foreign investment and creating a favorable investment climate in Ukraine.

## **STATEMENT OF THE PROBLEM**

At present there is no single methodological approach to assess the investment climate, industry, region or company. As most methods are based on the use of statistics and determined by the qualitative characteristics of the object using expert ratings and evaluation methods which are considered to contain high level of subjectiveness and not to cover all the factors that influence this process. Thus, we consider the problems of the article to be actual and the one that needs further studying.

## **THE AIM OF THE PAPER**

is to carry out a comprehensive analysis of investment attractiveness of Ukraine, to determine the factors that influence the attraction of foreign investment and provide appropriate recommendations for its improvement.

## **THE MAIN MATERIAL**

Attracting foreign capital provides a variety of benefits and advantages for future economic development. At this stage Ukraine should create a favorable investment environment to attract huge financial resources. Foreign investment is really important to modernize the Ukrainian economy.

First, foreign investment brings not only capital, but also modern technology. This leads to increasing of competitiveness, improvement of the quality of products and services and helps to reduce the costs.

Second, attracting of foreign investment leads to restoration and expansion of capital, implementation of investment programs, the rise of the economy, the saturation of the domestic market with competitive goods and services. Third, the direction of foreign investment in specific projects is always accompanied by retraining and training of personnel that helps domestic employees to obtain knowledge for effective use of new technologies and to obtain international contracts. Fourth, foreign investment leads to getting experience of the world economy, promote further improvement of the investment climate for both foreign and domestic investors. Fifth, the infusion of foreign investment accelerates the integration process of Ukraine in the world economy, leading to the development of integration processes of globalization, promotes and enables the country to occupy a leading place in the world economy. These arguments suggest increasing the level of foreign investment in the economy of Ukraine for its growth and recovery (Hrebeniuk, 2012, Gluschenko, 2009). The decisions of foreign investors will depend on all these components of investment attractiveness. The main factors that influence investment decisions include: the attractiveness of the country in the way of cost, sales and features of historical development, culture, language and political risk (table 1).

Factors	Level of influence		
	macrolevel	mesolevel	microlevel
Institutional	<ul style="list-style-type: none"> <li>- internal and external political stability of the country;</li> <li>- guarantee of rights and freedoms;</li> <li>- the degree of government intervention in the economy;</li> <li>- trade policy of the country;</li> <li>- the level of integration of national legislation in the global legal framework;</li> <li>- stability of the economic, financial and tax law;</li> <li>- protection of intellectual property, domestic and foreign investors' rights in the country;</li> <li>- customs policy and participating in the world organizations.</li> </ul>	<ul style="list-style-type: none"> <li>- internal and external political stability of the region;</li> <li>- guarantee of rights and freedoms;</li> <li>- the degree of government intervention in regional economy (industry);</li> <li>- support for small and medium businesses in the area (field);</li> <li>- trade policy in the region;</li> <li>- protection of intellectual property in the region;</li> <li>- easy obtaining of permits and connection to city communications.</li> </ul>	<ul style="list-style-type: none"> <li>- internal stability policy of the company;</li> <li>- guarantee of rights and freedoms of an employee;</li> <li>- degree of government intervention in the economy of the enterprise;</li> <li>- trade policy of a company;</li> <li>- company activity according to the current regulatory and legal legislation;</li> <li>- development of communication networks in the enterprise.</li> </ul>
Economical	<ul style="list-style-type: none"> <li>- general characteristics of the economy and stability of the national currency;</li> <li>- GDP growth;</li> <li>- taxes, fees, benefits;</li> <li>- the possibility of repatriation of capital;</li> <li>- characteristics of the banking system and its services in the economy;</li> <li>- environmental conditions: requirements of standardization, quotas and penalties in the economy of the country;</li> <li>- currency and financial risks.</li> </ul>	<ul style="list-style-type: none"> <li>- general characteristics of regional economy (industry);</li> <li>- growth rate of GDP;</li> <li>- needs and resources region (field);</li> <li>- information campaign in the region (field);</li> <li>- ecological situation: requirements of standardization, quotas and fines in the region's economy (industry);</li> <li>- characteristics of local markets.</li> </ul>	<ul style="list-style-type: none"> <li>- general characteristics of enterprise economy;</li> <li>- rate of growth of gross output of enterprises;</li> <li>- rates of average return on enterprises of this type;</li> <li>- easy access to credits for enterprises;</li> <li>- financial risks;</li> <li>- level of information security and access to global networks;</li> <li>- cost of inputs.</li> </ul>

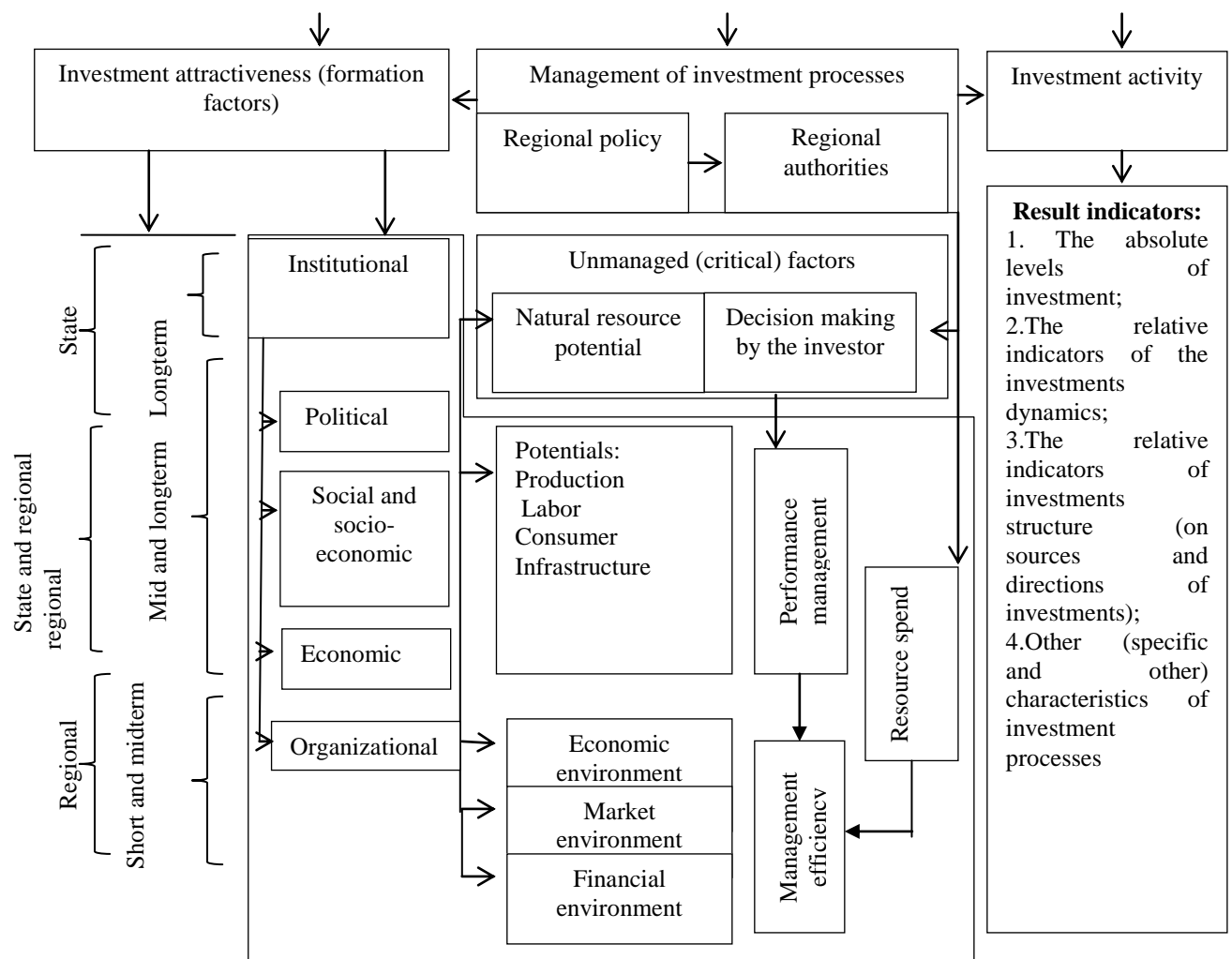
Social	<ul style="list-style-type: none"> <li>- level of social development, social conditions and living standards in the country;</li> <li>- tolerant society against other religions and nationalities in the country;</li> <li>- degree of political activity in the country;</li> <li>- level of criminality in the country;</li> <li>- level of the trade union movement in the country.</li> </ul>	<ul style="list-style-type: none"> <li>- level of social development of a society, social and living conditions in the region;</li> <li>- degree of political activity of the population in the region;</li> <li>- level of criminality in the region.</li> <li>- level of trade union movement in the region.</li> </ul>	<ul style="list-style-type: none"> <li>- level of education and qualification training of employees;</li> <li>- trade unions activity on the enterprises;</li> <li>- social and psychological climate on the enterprises;</li> <li>- styles and forms of management in the company.</li> </ul>
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Table 1. Factors that form the investment attractiveness at different levels of the economy\*

\* compiled by Grinyova, 2005, Ivanochko, S. 2011, Sharpe, Alexander, Bailey, 2001

The factors system was established that determine the favorableness level of the investment climate (Fig. 1.). The structure takes into account: the objective factors; investment climate formation under the totality influence; the investment climate differentiation at different levels of the economy; synergies characteristic of investment climate; inclusion of the investment climate in the institutional system of the state; appearance of various risks as a result of certain conditions. The structure was transformed taking into account the need to eliminate the above drawbacks, and to consider it at the regional level.

The generalized structural module of investment climate has the form presented on Fig. 1.



In presented structural model, it is necessary to note the critical factors of the investment climate formation in the region. Under them we understand factors that cannot be formed by the management bodies of the state, region, economic entities (their groups), etc. as the subjects of investment management process in a certain area. We can include to them all natural resource potential of the territory, which is the base to select industries of its economic system in interregional and international labor division. The identification of these sectors does not depend on someone's wishes, fashion, political situation and other. It is an objective evaluation process of the existing natural potential and choice of the most rational ways of its sustainable use, taking into account the changes in the external market environment. The process and the result of a decision making by the investor is another critical factor that defines not the investment attractiveness of the territory, but the management effectiveness of investment processes. Unlike the first critical factor it is characterized by the lack of comprehensive (and even sufficient) information on methods how to evaluate the situation and algorithms of investment decisions making and secondly, their high subjectivism, mass media influence, accepted stereotypes, fashion, etc. So this part of the formation process of the investment climate specifies its objective uncertainty, because unlike other it cannot be calculated with a high degree of certainty.

To assess the current investment climate in Ukraine we'll pay attention to doing business and the competitiveness of the domestic economy of our country on the basic parameters (Table 2).

Index	Years			Note
	2011	2012	2013	
Corruption Organization Index Transparency International	152 place among 182	144 place among 176	144 place among 177	Corruption Index
Rating of Doing Business	145 place among 183	152 place among 183	137 place among 189	Rating of Doing Business (easy opening of company, licensing, hiring employees, registering property, getting credit, protecting investors' interests)
Rating of Competitiveness World Competitiveness Yearbook	57 place among 59	56 place among 59	49 place among 60	Research in competitiveness (state of the economy, government efficiency, business efficiency and the state of infrastructure)
Index of Economic Freedom Heritage Foundation	163 place among 179	163 place among 179	161 place among 178	Definition of economic freedom degree (business, trade, financial, credit, investment, working freedom, freedom from the Government, freedom from corruption, property right)
Index of Global Competitiveness of Economy World Economic Forum	82 place among 139	73 place among 144	89 place among 144	Competitiveness, institution quality, infrastructure, macroeconomic stability, education, financial market developmen)

Table 2 Evaluation of the investment climate in Ukraine by international rating \*

*\* compiled by International ratings of business and economic competitiveness (2013), Ukrainian Association of Investment <<http://www.uaib.com.ua>>*

Due to table. 2, it is obvious Ukraine occupies the last position in the ratings and this is a sign of poor investment climate. We should note the negative trend on all ratings that means the national economy is becoming less attractive to foreign investors each year. According to the international analysts, one of the biggest problems of Ukraine's economy is the necessity for improving public institution activity. Businessmen consider bureaucracy and government regulation of business in Ukraine to be one of the highest in the world. This leads to the need of protecting property rights and minimize risks in raising funds and promoting investment in the country.

According to experts (Datsiy, 2009, Lemishko, 2007, Ivakhnenko, 2010), there are two main causes why the process of investment policy reform in Ukraine is slow down. They are: the slow pace in adopting changes in legislation and poor implementation of laws.

In order to improve the investment climate and investment attractiveness of Ukraine it is necessary to consider urgent measures for improving the methodological basis for evaluation of investment attractiveness. That will allow to determine the current situation of the country more accurately, to highlight the "problem" places and act as a tool to manage the country's attractiveness. We offer the following levels of assessment of investment attractiveness: 1) country (to minimize the number of parameters, to take into account national specificities of the economy, to apply mathematical methods for calculating the indicators), 2) industry, region (to study both short and long term prospects, to use different sources of information and analysis of the full range of indicators, etc.), 3) enterprise (to create a universal technique that would be suited for the analysis of companies involved in various kinds of activities, taking into account the dynamics and trends of the company, competitive market position, etc.).

Organizational-economic and legal mechanism of favorable investment climate formation in the region (FICF) is consciously regulated system of economic, legal, organizational forms, methods, means and principles, as well as the regulated by state relations and interconnections which impact on the investment climate in the region (Fig. 2). It is a specific lever by which a state realizes a controlling influence on the investment climate in the region. It includes: 1) set of principles, directions and priorities of the activity organization on formation of favorable investment climate in the region; 2) economic forms, methods, means and tools of influence on the investment climate in the region; 3) set of regulated by state relations and interconnections of all participants of investment activities that ensure the effectiveness of the regulatory impacts on the investment climate.

The mechanism is aimed to reduce investment risks and increase of investment potential in the region. To achieve these goals we need to solve a set of related tasks, the priority of which is determined by

the regional authorities, depending on the diagnosis of the current state of the investment climate in the region, that is expressed in the identification of the most significant investment risk and investment potential; the components importance of investment risk and potential from the point of view of potential investors.

The mechanism FICF in the region is developed taking into account such important principles including: 1) focus on direct investments; 2) reduction of investment risks; 3) use of comparative advantages; 4) universality and adaptability of the basic features and tools of mechanism; 5) connection of the investment climate and investment activity; 6) integration of the regional mechanism in investment sphere of the single economic complex of the country.

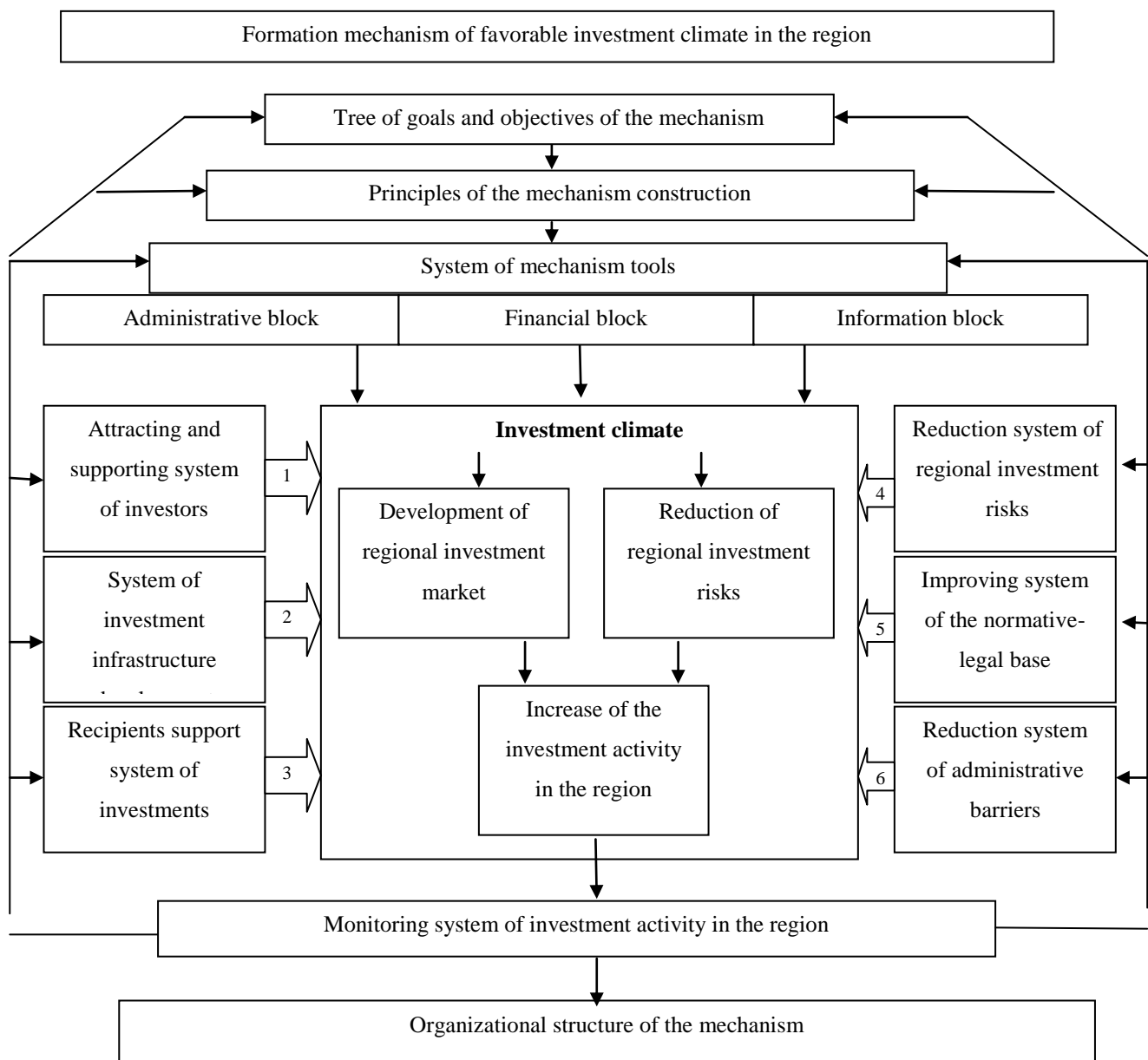


Fig. 2. Structure of the mechanism FICF in the region

The mechanism FICF effect on investment activity in six main directions: 1) proposal formation of investment resources; 2) creation of quality demand from investments recipient; (3) creation of effective investment infrastructure in the region, which facilitates interaction between investor and investment recipient; 4) improvement of the regional legal base of investment; 5) reduction of administrative barriers to investment; (6) reduction of regional investment risks.

Methods, forms and methods of influence are used on each direction, and they are united into enlarged blocks of elements of the FICF mechanism.

I. The support system of investor includes the following elements: information support of potential investors, entry into the regional market, organization and support of investment projects.

II. The support system of investments recipients includes complex of consulting assistance and elements of administrative stimulation.

III. The development system of investment infrastructure includes the transport development, telecommunication infrastructure, hotel and tourist business, financial infrastructure of the region, development of leasing, franchising and the information and consulting services development in the field of investments.

IV. The reduction system of regional investment risks includes the development and improvement of investment policies and strategies in the region, complex programs on investment risks reduction, insurance of investments and increase of information openness of the region.

V. The improvement system of normative legal base of investment in the region is aimed at the formation of favorable investment and legal climate in the region. In this block we have to solve the following tasks:

- 1) to create favorable conditions for the participants of investment activity in the region;
- 2) to form the forms list of state support of investors in the region;
- 3) to determine the priority directions of investments attraction;
- 4) to form the list of priority investment projects in the region;
- 5) to reduce the investment legislative risk in the region.

All forms and ways of favorable legal climate formation in the sphere of investing must be contained in laws and legislative acts: law on state support of investment activity in the region; law on state and legal guarantees of the region; law on tax advantages; law on investment tax credit; law on the address investment program of the region and the list of priority investment projects; law on stimulation of economic development of the region, etc.



VI. Reduction system of administrative barriers to investment is aimed to overcome “small number of investment’s places: underdeveloped secondary land market, the taxation burden, currency regulations and customs procedures in the framework of foreign economic activity.

Here there are recommendations to regional authorities on the development of healthy competition in the region; inconsistencies elimination on how to use and interpret of laws and legislative acts; practice of public authorities on how to create their own consulting firms on the issues of land, construction, customs, migration and licensing.

The mechanism tools of FICF of direct and indirect influence on the investment climate in the region were divided into three blocks: administrative, financial and information. Despite of the allocation of all tools in separate blocks, the maximum effectiveness of the mechanism can only be achieved by their complex usage. The blocks represent a system of mechanism tools of the favorable investment climate formation. The mechanism effectiveness of the FICF is determined by using the monitoring system of investment activity in the region. During its formation it is necessary to apply the following algorithm:

- 1) to define measurable indicators of investment activity;
- 2) to establish the information sources for conducting the monitoring;
- 3) to select a data collection methods;
- 4) to determine the frequency and schedule of their collection;
- 5) to appoint responsible for obtaining the necessary information;
- 6) to determine the technology of processing and analysis of the received information;
- 7) to determine the recipients of the monitoring results for further use;
- 8) to form the methods of control and correction of the monitoring results;
- 9) to take into account the costs of monitoring.

## CONCLUSIONS.

Investment climate is a system of diverse natural and geographical, financial, economic, socio-cultural, organizational and legal conditions and factors of the country. These factors define country’s attractiveness to investors. The most rating agencies don’t consider Ukraine to be an attractive country for investments. It was reported that the main factors that affect the investment climate and investment attractiveness of Ukraine are: macroeconomic instability, due to the numerous risks of investing in the country, the low level of protection of foreign investors, which negatively affects the image of Ukraine and imperfect legislative regulation that negatively affects the profitability of investment, corruption and blocking foreign investment.

The received mechanism of FICF summarizes some important points. Firstly, this mechanism is the basic that includes a common set of elements, which can be selected and detailed, in accordance with specific goals and objectives of each individual region.

Secondly, the mechanism FICF was developed based on the experience of the regions that have the most favorable investment climate in Kyiv, Dnipro). In these regions the state of investment activity was analyzed and the most effective methods of influence were identified.

Thirdly, all blocks of the mechanism are vector projections of socio-economic development of the region for investment platform. The structure and activity of the use of certain mechanism tools is determined by the economics characteristics of the region.

Fourthly, the mechanism is designed to reduce regional investment risks, while includes elements and influence tools on the investment potential of the region.

Fifthly, in the mechanism the tools were laid "feedback" or methods of basis influence that helps to improve the mechanism adaptability in the changing socio-economic conditions and effectiveness of regulatory impacts of the superstructure.

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## OPPORTUNITIES AND THREATS FOR THE RUSSIAN COPPER INDUSTRY AFTER THE COUNTRY'S ACCESSION TO THE WORLD TRADE ORGANIZATION

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### ABSTRACT

Accession to the World Trade Organization (WTO) has strong impact on the country's economy as it stimulates reduction of the international trade barriers. However few studies have been conducted in order to evaluate the consequences for specific industries and effects on the global market development for the case of Russian Federation which is one of the leading exporters of oil, gas, chemicals and metals.

The article concerns the influence that the accession of Russia to the WTO will have on the development of the national copper industry and the global copper market in its current state.

The authors determine the role of Russia in the global copper market as a net exporter; discuss opportunities and threats connected with the country's commitments as the WTO member state, mentioned in the previous researches; analyze the qualitative changes which result from the implementation of the specific terms of accession, scheduled to be implemented by the end of the years 2014 to 2016.

It is concluded by the authors upon the analyses that the values of both Russian exports and imports of goods with copper content are likely to show the upwards trend in the next years. However the global market downturn can compensate for the growth. At the same time the share of goods with low added value in the country's commodity structure of exports is very likely to grow to meet the demand in the global market. Thus strategic marketing effort is required from the national companies to improve their competitive positions.

**Keywords:** *world copper market situation, copper industry, export, import, trade barriers, tariff, customs duties rates.*

### INTRODUCTION

Copper was first used by humans presumably more than 10 000 years ago as one of the first metals to be extracted and processed. It is a soft and malleable metal, resistant to corrosion. Its alloys are a good

material as a conductor of heat and electricity. Nowadays about 30% of the copper produced is used in equipment production, including hi-tech appliances, another 30% is used in building construction, the other uses including infrastructure industries (copper wires are an essential part of power transmission systems), transport and common industrial use (copper radiators and pipes are widely used in various machinery). It is said that an average passenger car contains 1.5 kilometers of copper wire and from 20 to 45 kilograms of copper in the car parts (Doebrich, 2009).

The increase in demand resulted in the boost of production and the international trade turnover. It is China that is considered to be the market maker in the copper market nowadays. Still one of the remarkable events of the recent years was the accession of the Russian Federation to the World Trade Organization (WTO) in 2012. It is an international body, which aims at supervising and promoting the liberalization of the international trade.

Russian Federation is one of the top-ten world economies with the gross domestic product exceeding 3.3 trillion U.S. dollars (USD) and exports exceeding 540 billion USD according to the World Bank's estimates. The country however only ranks 92 out of 189 states in the World Bank's "Ease of Doing Business" ranking. The pace of economic development is partly limited by orientation on exporting of raw materials and dependency on importing industrial equipment. This results in ineffective regulation including construction permits and getting electricity, high cost of credit and low level of investment protection. All these factors lead to many enterprises being uncompetitive due to old production sites, out-of-date equipment and low labor productivity. But above that all, World Bank highlights the difficulties in trading across borders which exporters and importers have to overcome doing business in Russia. In this regard Russian Federation only ranks 157 out of 189 states by the conditions of getting involved in the international trade.

In order to speed up the economic development and make cross border trade more effective, the country has been seeking the WTO accession for almost 20 years since 1993. The main commitments finally undertaken in 2012 include reduction of import customs duties and elimination of export ones, significantly reducing the state influence on electric power market and other complex measures. In general, as a result, export-oriented industries should benefit from the increasing openness while some local companies that focus the domestic market competing with imports may be vulnerable to import boost.

The country's commitments are to be implemented by the end of the transition periods or "schedules" which have been set for particular groups of goods. For many products with copper content the customs duties are to be reduced by the period of the years 2014 to 2016.

In this regard the main aim of the article is to provide the estimation of the influence that the accession to the WTO may have on the development of the Russian copper industry, which is an important

sector of the national economy, and estimate the consequences for the global copper market. In order to reach this goal the authors analyze the global market situation and the current position of Russia; review previous studies of the impact of the WTO accession on the Russian economy and copper industry in particular; discuss the questions if the commitments to reduce and eliminate customs duties support the country's strategic goal of increasing the share of goods with high added value in exports and if they can lead to improving the country's position in the global copper market.

## CURRENT SITUATION IN THE WORLD COPPER MARKET

### *Production*

According to the U.S. Geological Survey (Mineral Commodity Summaries, 2014), the world reserves of copper-bearing ores are estimated at the level of 690 million tons of metal with the world annual consumption exceeding 20 million tons. Significant reserves are possessed by Chile (190 million tons), Australia (87 million tons) and Peru (70 million tons), which together account for more than half of the world reserves. Large reserves of about 40 to 30 million tons are found in the U.S.A., Mexico, China, Russia, Indonesia and Poland. Other countries in total account for about 21% of the world reserves.

The world mine production of copper in the past seven years has increased by impressive 16% and is about to reach the level on 18 million tons of copper content (Mineral Commodity Summaries, 2008-2014). The leading mining countries are shown in Table 1 including Chile (32% of the world mine production) and China (9%) with Russia belonging to the group of states that have 5-7% of the global mine production.

Rank as of 2013	Country	Mine production by year, thousand tons of copper content							2013 to 2007, %	Share in the world mine production
		2007	2008	2009	2010	2011	2012	2013 (e)		
1	Chile	5560	5330	5390	5420	5260	5430	5700	102,5%	31,9%
2	China	946	950	995	1190	1310	1630	1650	174,4%	9,2%
3	Peru	1190	1270	1275	1250	1240	1300	1300	109,2%	7,3%
4	The U.S.A.	1170	1310	1180	1110	1110	1170	1220	104,3%	6,8%
5	Australia	870	886	854	870	958	958	990	113,8%	5,5%
6	Russia	740	750	725	703	713	883	930	125,7%	5,2%
7	Congo (Kinshasa)	n/a	n/a	n/a	343	520	600	900	n/a	5,0%
8	Zambia	520	546	697	690	668	690	830	159,6%	4,6%
9	Canada	589	607	491	525	566	579	630	107,0%	3,5%
10	Mexico	347	247	238	260	443	440	480	138,3%	2,7%
11	Kazakhstan	407	420	390	380	417	424	440	108,1%	2,5%
12	Poland	452	430	439	425	427	427	430	95,1%	2,4%
13	Indonesia	797	651	996	872	543	360	380	47,7%	2,1%
n/a	Other countries	1840	2030	2190	1900	1970	2000	2000	108,7%	11,2%
n/a	World total	15428	15427	15860	15938	16145	16891	17880	115,9%	100,0%

Table 1. *World mine production of copper*

The world production of refined copper has increased by 16.9% in the period of 2007 – 2013 and amounts to 21 million tons, including 3.6 million tons developed from recycled materials (Mineral Commodity Summaries, 2014). The pattern of the refined copper production, according to the results of the year 2012, includes the following leaders: China (29% of the global production volume), Chile (14%), Japan (7%), USA (5%), Russia (4%), India (3%), Germany (3%).

The top copper producing companies are shown in Figure 1 (World commodity markets statistics, 2014).

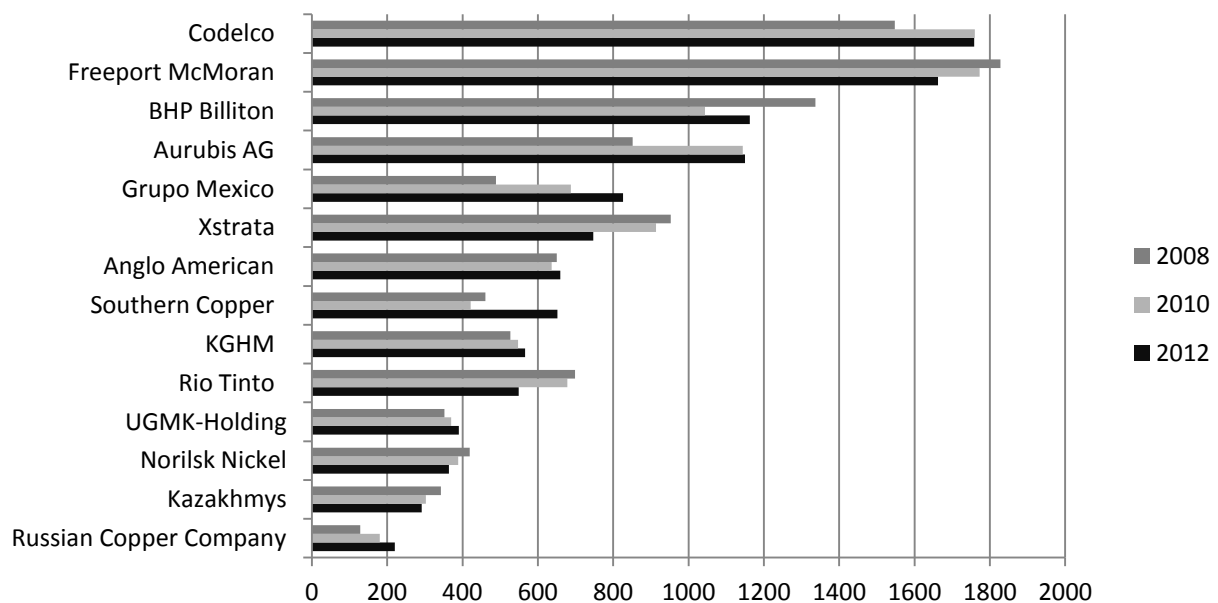


Figure 1. *Refined copper production by company / thousand tons*

It should be noted that the list of the 10 companies which are the world's leading producers includes three Russian copper producers, namely UGMK-Holding (also referred to as UMMC – Urals Mining & Metallurgical Co.), Norilsk Nickel, and Russian Copper Company. However, the combined capacity of the Russian market leaders does not exceed 4-5% of the global production, which is about 900 thousand tons of copper per year.

### *Consumption*

Copper is a metal used in various fields. The shares of the end use sectors by their usage of the copper content in 2012 are presented in the Figure 2 (The World Copper Factbook, 2013).

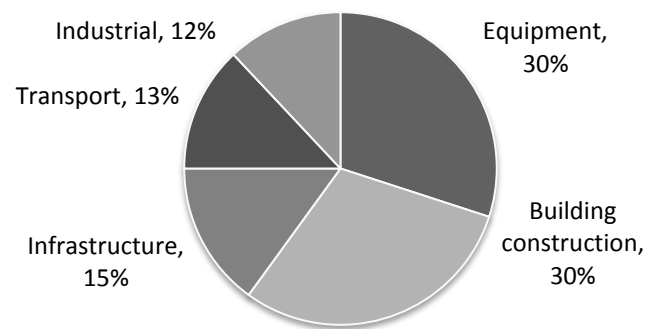


Figure 2. *Major Uses of Copper by the End Use Sector, 2012*

World refined copper usage almost reached the level of 21 million tons in 2013 which is twice as much as the world consumption in 1987. The long-term dynamics are shown in Figure 3.

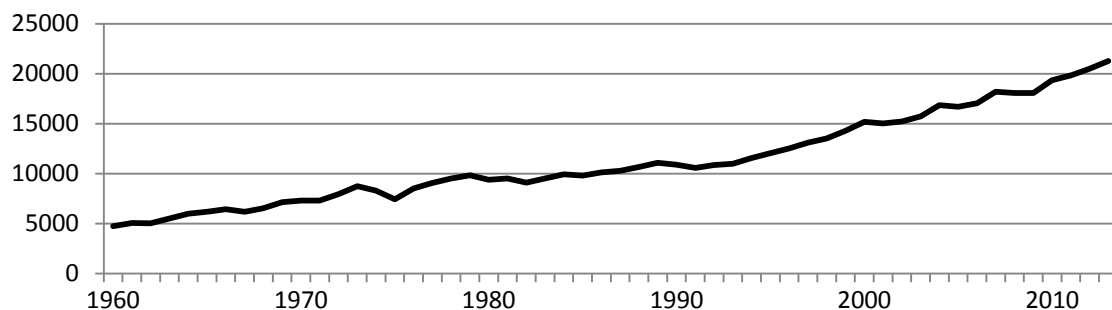


Figure 3. *Dynamics of the world copper consumption / thousand tons*

Currently the growth in demand is to a greater extent provided by an increase of the level of consumption in China which is accompanied by the growth of its own production, and increasing volume of raw materials imported from the Democratic Republic of Congo, Zambia, and Australia. The data by country and region is presented in Figure 4 (World commodity markets statistics, 2014).

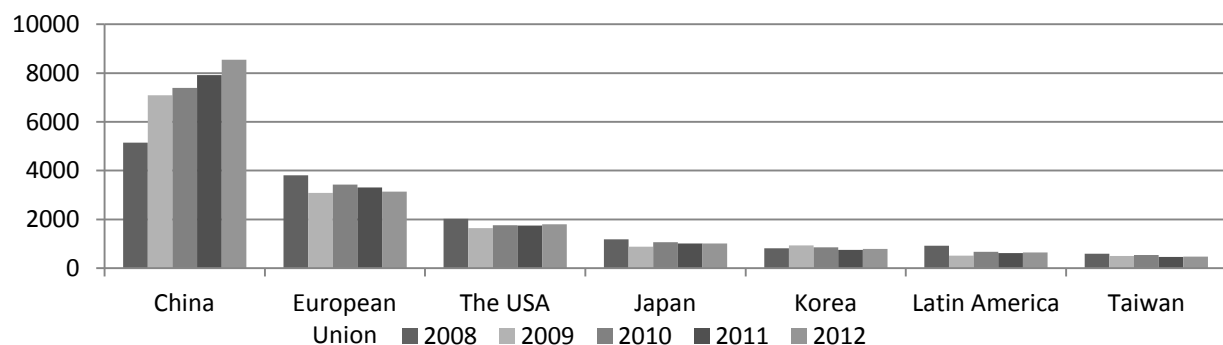


Figure 4. *World copper consumption dynamics by country (region) / thousand tons*

*Global trade and market price*

At the current stage, the overall import growth can mainly be attributed to the growth of demand from China, as it has been already mentioned. Most of the industrialized countries on the contrary have the demand for copper reducing in the last years. Still according to UNCTAD, the EU continues to play an important role in the global copper market (International Trade of Refined Copper, 2013). The list of leaders in terms of refined copper exports includes Chile, Germany, Japan, France, and Russia. Leading importers of refined copper are China, the U.S.A., Italy, Germany and France. Figure 5 shows the leading refined copper exporters and importers – excluding the trade in unrefined copper.

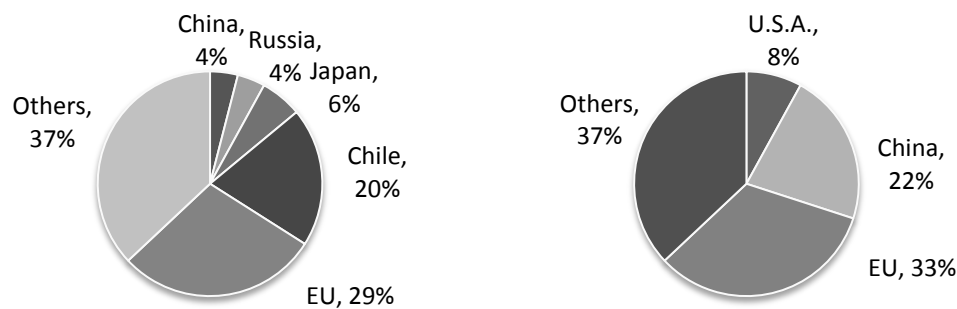


Figure 5. Major refined copper exporters (left pie chart) and importers (right pie chart) during 2007-2012

In the year of 2013, the copper market environment, unlike the previous 3 years, was characterized by production excess over the physical demand. One of the indicators of overproduction is the growth of copper stocks at the London Metal Exchange (LME). In early 2013, experts predicted growth in copper demand. The forecasts resulted in production growth. However, in the first half of 2013 the copper stocks have reached their historic highs for the last 10 years and totalled 516.8 thousand tons. (Day, 2013). The main destabilizing factor on the global non-ferrous metals markets currently is the China's shift from increasing import volumes of raw materials to focusing on its domestic mining and production.

Against this background, the whole dynamics of the world market prices of non-ferrous metals since 2011 possess a predominantly bearish character, after the price has recovered from the slump of 2008. In particular, an average copper price in 2013 was recorded at 12.4% lower level than in 2012. The current price of copper demonstrates the dynamics instability. Thus, in March 2014 the cost of 1 ton of copper on the LME declined sharply from 7-7.2 thousand USD to 6.6 thousand USD, well below the average price level of the recent years. According to the expert forecasts, the trend toward price reduction will continue for the years of 2014-2015 (Saefong, 2014). The Figure 6 shows historic data and the authors' estimates for 2014-2015.



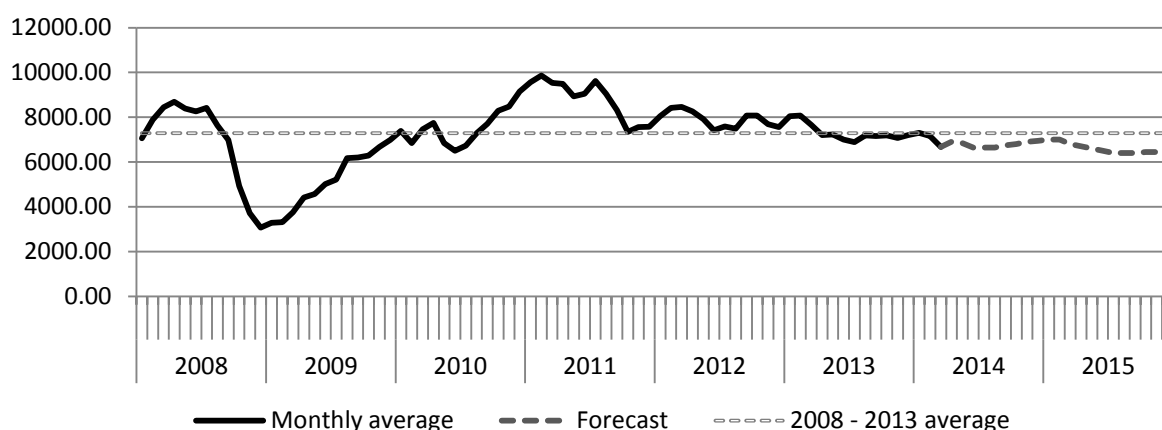


Figure 6. *Dynamics of the copper price on the London Metal Exchange, USD / t*

All in all it may be not the best times for the copper producers including the Russian organizations which do not have sufficient weight in the global copper market for a significant impact on such market conditions. Thus global market slowdown in fact can be a significant threat for the copper industry development.

#### *Market position of Russian Federation*

In addition to the facts mentioned above, it should be noted, that the main copper refinement product in Russia is wire rod from 8 to 18 mm in diameter. This refinement product possesses the higher added value in comparison with copper cathodes, but less added value if compared to other products of the copper industry, such as stranded wire, pipes, fittings, and plate radiators. It is estimated that up to 70% of Russia's refined copper cathodes are processed into rods. Meanwhile, the domestic market capacity is limited, and thus, about half of the overall produced wire rod is exported (Uvarov, 2009).

Russian organizations secure their positions in the niche, they currently focus. According to the industry experts' estimates, almost all the export volume of the refined copper is sold to the countries of the EU (major importers being the Netherlands, Germany and Belgium) and Turkey. (The Urals Metal Market, 2011).

Some copper-bearing ore and scrap are imported by Russia from Kazakhstan. The non-ferrous metallurgical companies of the two countries have strong business links and forming of the Eurasian Economic Union of Russia, Kazakhstan and Belarus in 2015 can stimulate the development of new investment projects and support economic growth.

The analysis of available statistics on the Russian international trade in copper products (Fig. 7) clearly shows that Russia is a net exporter. Despite the marked local downturns (late 2008 - early 2009) and bursts (II quarter of 2012), the value of Russian exports of copper remains generally constant,

fluctuating around the level of 1200 million USD per quarter while the imports remain on the relatively low level of about 150 – 250 million USD per quarter.

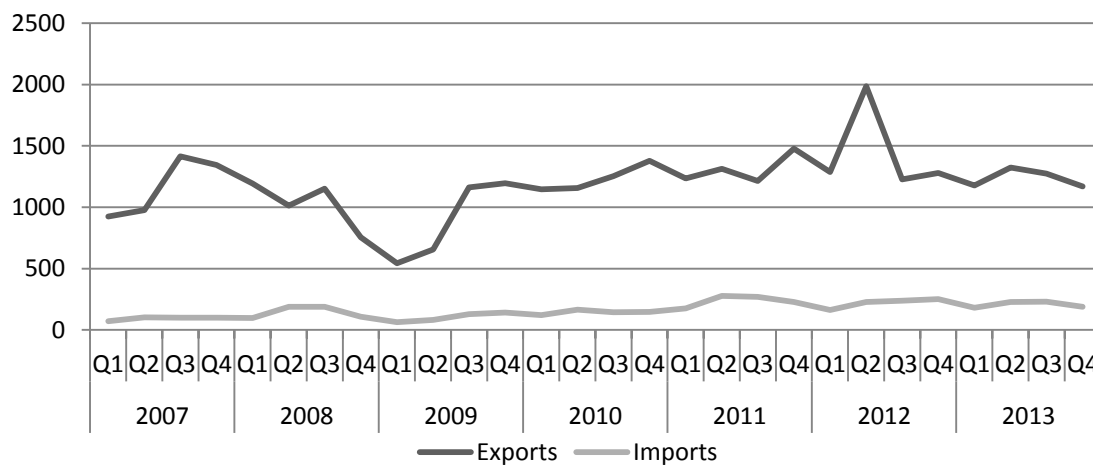


Figure 7. *Russian copper products exports, million USD.*

The Figure 7 data compared with Figure 6 show that more than two-fold reduction of the export volume during the time period between the years 2008-2009 occurred due to a decline in global demand and prices. During the second quarter of the year 2012, the export growth for more than 50% if compared to the same period in 2011 had the background of a smooth reduction in world prices, which can be explained by the plans of manufacturers to increase export volumes before the possible prices slump, predicted for the summer and autumn seasons of the year 2012, or until the ratification of the WTO Accession Protocol, which was associated with significant uncertainty for the Russian market development.

## CONSEQUENCES OF THE WTO ACCESSION FOR THE RUSSIAN COPPER INDUSTRY

### *Literature review*

Russia had initiated negotiating the conditions of accession to the WTO in 1993 and it was finished in 2011. Surprisingly not so many scientific researches on the consequences for specific industries have been conducted during the long negotiation period. The main reasons for that include the complexity of the WTO documentation and the lack of the statistics on the development of the domestic industries. However some valuable studies should be mentioned that have been conducted by Russian and international organizations for the state authorities and national companies. Some of them discuss the prospects of non-ferrous metallurgy development alongside with other industries.

A preliminary analysis, which was organized in 2002 by the Russian Academy of Sciences and the National Investment Council, revealed the threat of system problems occurring after accession to the

WTO in a number of industries, including metallurgy. The estimates performed on the inter-industry model for non-ferrous metals found a relatively high elasticity of imports and production volumes for import customs duty. So, under the condition of simultaneous decrease of import duties for 1 percentage point, there was anticipated the import growth by 1.79% and the decline in domestic production by 1.4% (Nikepelov *et al.*, 2002). However, the analysis of the preliminary gradual increase of duties in 2010-2011 prior to their binding, revealed that, thanks to such preventive measures, no import growth could be expected in three of the 24 selected economy sectors, including non-ferrous metallurgy. For the latter, it was also anticipated that the previous production volumes could be preserved, in contrast to the ferrous metallurgy.

The multivariate analysis of the Russian economy development prospects, held jointly by the Ernst & Young Company and the New Economic School in 2011-2012, revealed that the non-ferrous metallurgy was expected to have the highest production growth after accession to the WTO of 114.45% by the end of the transitional period in comparison to the level of the year 2011 (Ivlev, *et al.*, 2012).

The studies conducted by the World Bank, also predicted a significant positive effect of the accession to the WTO for the Russian non-ferrous metallurgy. In particular, 35 sectors of economy were identified for the survey of the year 2004, only 7 out of them were expected to have increase in production, and only 5 of them were expected to have an employment level growth due to the increase in production output. Non-ferrous metallurgy was mentioned to have both positive effects (Brodman, 2004).

In the analysis of sectorial and regional aspects of the accession to the WTO, the Russian analytical centre "WTO Inform" emphasized the high risks for the economy as a whole. At the same time the experts formed a favourable forecast of financial situation for the copper industry enterprises, including UGMK-Holding and Russian Copper Company; there was also stated the possibility of their revenue increase after the accession to the WTO.

It should be noted that most of the Russian copper-smelting companies had completed major modernization projects before accession to the WTO. The largest enterprises that produce refined copper are included into the vertically integrated companies: Norilsk Nickel, UGMK-Holding and Russian Copper Company – which account for more than 87% of the total industry production. Studies indicate a relatively high level of production competitiveness and, ability to work in accordance with the WTO conditions. Still the reduction of import duties should have positive impact on the costs of new investment projects. (Myzin, Kuklin, 2005).

The business community experts and the leading Russian business press ranked the industry risks for non-ferrous metallurgy as the lowest ones among other industries. It is assumed that the reduction of import barriers for copper products should not lead to the competition toughening on the domestic

market, which is not very attractive to foreign companies. Still the domestic production capacity growth rate is not likely to exceed 10-15% a year. (Aliev, 2011).

*Import duties reduction for products with copper content*

Analysis of the Russian Federation commitments for import duties reduction leads to the conclusion that for most of the commodity items, representing products with copper content of relatively low added value, the import duties are not bound and can be preserved at the level prevailing at the date of WTO accession. These conclusions are generally valid for the following groups of commodities according to the Harmonized System: 26 "Ores, slag, ash", 38 "Other chemical products", 73 "Articles made from Non-Ferrous Metals", 74 "Copper and articles thereof". The exceptions are represented only by separate commodity items and subgroups, the major of which are set forth in Table 2.

Commodity group (extended Harmonized System code)	Bound Rate at Date of Accession, %	Final Bound Rate, %	Year of Implementatio n
Ores, slag, ash (2603 00 000 0)	5	3	2014
Fungicides: preparations based on copper compounds(3808 92 100 0)	5	3	2014
Stranded wire, ropes, cables, plaited bands, slings and the like, of iron or steel, not electrically insulated plated or coated with copper-zinc base alloys (brasses), including: the ones with fittings attached, or made up into articles, for use in civil aircraft (7312 10 410 1)	15	5	2014
and other (7312 10 410 9)	15	7.5	2014
Copper tubes and pipes of refined copper (7411 10 100 0, 7411 10 900 0)	5	3	2014
Copper tube or pipe fittings (for example, couplings, elbows, sleeves): of copper alloys (7412 20 000 0)	5	3	2014

Table 2. *Tariff concessions of Russia in terms of import duties for certain types of copper products*

The data listed in Table 2 show the groups of goods with the corresponding code in the Harmonized System which helps to identify the product for the customs formalities, the bound rates of customs duties fixed in the accession protocol as a starting point and final bound rate to be introduced until the end of the year of implementation.

The rates shown in Table 2 in general correspond to the estimates of the overall reduction of average import tariff, as a result of WTO accession, which is from 10.3% to 7.2%, and the level of tariff protection of Russian non-ferrous metallurgy in particular, which is from 6.4% to 4.7%, at the end of the transitional period. A more significant reduction of duties will be applied to commodity items of the "Stranded wire, ropes, cables..." subgroup as shown in Table 2. In this regard, it should be noted that in general, much more substantial obligations to reduce import duties on average from 15-20% to 10% or below, have been taken in respect of a large number of products with high added value. This

list includes a wide range of products: copper insulated wires, electrical wires, cables, components, machinery, household electrical appliances, microelectronics, jewellery.

It appears that in the long run the import of finished goods with copper content will increase which may impede the development of the domestic market. However it should be noted that the possible growth in the level of competition should have a beneficial effect on the development of the industry. It can stimulate performance improvement including cost reduction. At the same time a positive reflection of changes in the market position of domestic companies is possible only in conditions of favourable market situation and effective corporate management.

#### *Cancellation of export duties for copper products*

In general, as expected, the copper products manufacturers will increase export deliveries after the reduction and cancellation of currently applied export duties, which were designed to stimulate the production of goods with higher added value for the domestic market. Respective commitments of the Russian Federation are presented in Table 3.

Commodity group (extended Harmonized System code)	Bound Rate at Date of Accession, %	Final Bound Rate, %	Implementatio n period (years)
Copper oxides and hydroxides (2825 50 000 0)	6.5	0	4
Copper mattes, cement copper (precipitated copper) (7401 00 000 0)	10	0	4
Unrefined copper; copper anodes for electrolytic refining (7402 00 000 0)	10	0	4
Refined copper; copper cathodes and crude copper alloys (7403 11 000 0 – 7403 29 000 0)	10	0	4
Copper waste and scrap (7404 00 100 0 – 7404 00 990 0)	50, but not less than 420 € / 1000 kg	10, but not less than 84 € / 1000 kg	5
Master alloys of copper (7405 00 000 0)	10	0	4

Table 3. *Tariff concessions of Russia in terms of export duties for copper products*

The table columns are similar to Table 2 with an exception of the implementation period starting from the date of accession (August 2012) fixed in the official documents instead of stating a specific year. The listed rates of export customs duties applied at the date of WTO accession, proved to be an effective measure to limit the export of low-processed products, including copper scrap. Thus gradual or one-time reduction scheduled for the time period between the 2016-2017 years is associated with significant risks. They were clearly demonstrated by Russian companies in 2009 - 2011 when they obtained the opportunity to refocus their exports. In 2009, in response to the slump on the world commodity market, the export duties for copper cathodes (10% previously) were abolished. It led to dramatic increase in export of this produce with lower added value in comparison with the wire rod.

Reintroduction of the customs duties in 2010 resulted in stopping the export of cathodes while the copper wire rod exports, on the contrary, has increased significantly as a substitute.

In this regard cancelation of export duties for all copper products including scrap is likely to cause the situation of stockists exporting scrap rather than selling it to processors on the domestic market. In this case many production development investment projects can be shut down. Currently, it is estimated that copper scrap provides 28% of raw copper for Russian industry. For instance, the representatives of the UGMK-Holding announced that the main reason for the reduction of copper production by 4.1% in the first half of 2013 was the lack of copper scrap. As a result, by the end of 2014 the overall production is expected to be reduced by 4.4% year-to-year (Milyaeva, 2013).

Thus, at the current stage the growth of copper production seems likely mostly in part of the low value-added products. In case of exports increasing with the goods of low processing degree, the dependence of the domestic market on foreign economic conditions will be sure to grow. Consequently, the main purpose of the companies' operational and strategic management can fall down to preserving of the current position with respect to fluctuations in world market conditions. It may be considered the major threat for the industry development.

## CONCLUSION

The research has been conducted mostly on the qualitative level by analysing the experts' survey data, analytical reports of the national and international organizations, available statistics. In general the study shows the Russia's role in the global copper market as a net exporter supplying mostly semi-finished goods. Accession to the WTO is likely to result in the growth of copper exports after reduction and cancellation of currently applied export duties. This will lead to the increase of the market share of the Russian companies including Norilsk Nickel, UGMK-Holding and Russian Copper Company. The growth will be limited by production capacity and the total export volume cannot be estimated to exceed in the short term the level of 1.5 million tons a year – which account for 7.5% of the global market showing the growth from the current level of about 5%. However the growth of export volume may be accompanied by the shift in its structure towards the goods with low added value, including scrap, which doesn't match the country's strategic goals.

At the same time accession to the WTO should have positive impact on the Russian copper industry by creating a more competitive business environment providing incentives for intensification of modernization processes. It is clearly shown in the several studies mentioned in the article, including the conclusions of the World Bank, Ernst & Young and the New Economic School, Russian Academy of Sciences and the National Investment Council. This trend can be supported by the opportunities of

forming the Eurasian Economic Union in 2015 as copper refining enterprises of Russia and Kazakhstan have strong business links.

Still, as the industry is currently very dependent on the global market situation, it is assumed that if no actions are taken by the companies, the forecasted global market downturn will sharpen the contradictions of the industry development including the shortage of recycled resources, relatively low efficiency of corporate management and slowdown of domestic demand. In order to exploit the benefits of the accession to the WTO the companies' strategies should focus not on the production expansion but on creating a sustainable production process. This includes diversification of the product line, increasing the share of the goods with higher added value, developing mutually beneficial links with other enterprises of the associated industries, possibly focusing on the domestic market. If these actions are taken, Russia should strengthen its positions in the copper market, its companies overtaking partly the shares of the competitors in the European market.

The authors intend to continue the study on the qualitative level by creating models based on supply and demand curves for the Russian and the global markets for the specific products and the industry as a whole to estimate the qualitative effects.

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## KNOWLEDGE-INTENSIVE ENTREPRENEURSHIP AND LOW-TECH SECTORS: QUESTIONING THE SUCCESSFUL CREATION OF LOW-TECH BUT KNOWLEDGE-INTENSIVE VENTURES

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### ABSTRACT

The starting point of this paper is the ongoing discussion on knowledge-intensive entrepreneurship (KIE). Since recently the phenomenon had been assigned to high-tech sectors which are R&D and science- dominated. However, a new small but increasing stream of relevant literature argues that KIE is relevant if not pervasive in traditional, low-tech industries as well. Literature has offered a significant amount of insights related to the basic building blocks of low-tech (LT) KIE, i.e. knowledge, its sources and ways of exploitation, knowledge-intensive innovation and mechanisms and capabilities of reaching it, as well as types of LT-KIE ventures, among others. Furthermore, there is a plethora of skills, entrepreneurial characteristics and other antecedents and factors used as input, KIE management and output in KIE processes. However, there is a gap in the understanding of how low-tech but knowledge-intensive ventures are created, survive and grow within their mature and highly saturated business ecosystems. Therefore, thee numerous valuable constructs of existing literature can assist the further exploration of the topic called low-tech knowledge-intensive entrepreneurship in order to understand how LT-KI entrepreneurs and entrepreneurial teams recognize or create opportunities and transform them into successful knowledge-intensive business capable to survive the stagnancy of traditional mature markets. The paper purports to start this discussion by posing the relevant research questions maintaining mainly an *entrepreneurial approach* of the LT- KIE phenomenon.

**Keywords:** *low-tech industries, knowledge-intensive entrepreneurship, innovation, venture creation, knowledge, entrepreneurial approach, initial competitive advantage, resources*

### INTRODUCTION

Knowledge-intensive entrepreneurship (KIE) has been considered a type of high potential entrepreneurship which helps renew the economy. It indicates ventures whose initiation or expansion is based on the dynamic application of new knowledge. According to Malerba and McKelvey's (2010)

formal definition of knowledge-intensive entrepreneurship, KIE is associated with four basic characteristics:

- it concerns new firms (new ventures); new ventures that are innovative;
- new ventures engaging in activities that are knowledge intensive;
- and finally, new ventures that are not to be found solely in high-tech industries i.e. they may well be active in industries with medium or low-tech characteristics.

Therefore, KIEs are involved in *venture creation* which is a mechanism to translate *knowledge* into *innovation* (and further on, into survival and growth). Thus the ultimate objective in KIE is market success and not just the development of a radical innovation. Furthermore, entrepreneurs are considered knowledge operators, dedicated to the utilization of existing knowledge, the integration and coordination of different knowledge assets, and the creation of new knowledge, and engaged in the development of new products and technologies.

A detailed exploration of several KIE dimensions in an effort to unlock its riddles was provided by an FP7 Research program, called AEGIS. Actually, the survey based on a large set of data purported to identify motives, characteristics (including constituent knowledge assets and skills) and patterns in the creation and growth of new firms based on the intensive use of knowledge regardless sectors and levels of technologies. At firm level, the survey put emphasis on founders and founding teams' skills and characteristics, type of company formation, funding issues and potential obstacles. It further focused on the performance, innovativeness, success factors and relevant capabilities of the formed company as well as the system factors that affected these parameters such as the sources of knowledge and customers and the links and networks. The survey further extended to issues such as the institutional and market environment, strategic analyses and business models.

On the other hand, the AEGIS case studies addressed several of the conceptual issues which related KIE to innovation systems, growth and performance while many of the case studies focus upon strategy, business models, mobilization of resources and other internal processes of the venture creation, as related to a temporal dimension.

However, up to date, the discussion about knowledge-intensive entrepreneurship (KIE) is still mainly focused on new technology-based firms or academic start-ups in high-tech sectors. Little attention has been paid to sectors that conduct no or only few formal R&D activities and that are therefore characterized as non-research-intensive or "low-tech" (LT).

How easy is it to apply KIE in low-tech sectors? Hirsch-Kreinsen and Schwinge (2011) describe low-tech sectors as mature ones with established technologies and production regimes and well-recognized standards, methods, and knowledge related to both products and processes. LT industries face fierce competition due to the easy copy of their basic technologies by competitors with lower cost

bases mainly in Asia. Furthermore, LT knowledge bases include mostly codified, transferable and well-known elements such as design methods, engineering routines or the know-how about markets and customer preferences with well-defined behavioral patterns. Innovations in these contexts are more or less path-dependent i.e. they are based on technological knowledge and capabilities that have been slowly evolving around established technological trajectories and thus incremental and of little value in producing competitive advantage. As a result, the growth rates as well as radical innovations in these industries are relatively low.

Consequently, the above constraints indicate that LT sectors and firms seem to offer only very limited opportunities for KIE development. However, such opportunities seem to exist in spite the “stable environment of low-tech industries” (Deutschmann, 2008). Furthermore, competitive pressure and the ever-changing and volatile global business environment of today seem to force LT actors towards knowledge-based breakthrough innovations, even if they are not so spectacular as in the cases of high-tech (Bender and Laestadius, 2005; Hirsch-Kreinsen, 2008). This is further confirmed by the existence of the so-called “gazelles” of mature industries (cf. Yudanov, 2009). Such cases indicate the KIE can be applied in LT sectors. However, there is still a significant gap in the understanding of how low-tech but knowledge-intensive ventures are created, survive and grow within their mature and highly saturated business ecosystems.

## **KNOWLEDGE-INTENSIVE ENTREPRENEURSHIP AND LOW-TECH SECTORS**

An extensive literature review highlights the significance of low-tech sectors as well as their potential regarding innovation and the use of knowledge. Thus, paraphrasing Mendonça and von Tunzelmann (2004, p.15) who referred to LT- innovation the present thesis supports the view that, “KIE in low-tech industries should ... not be seen as a contradiction in terms.” However, the recent research on KIE indicates that translation of knowledge to innovation through LT- KIE is more complex than expected compared to high-tech sectors. In the same vein, the limited research on LT-KIE shows that the sectoral conditions seem to affect to a significant extent the creation or exploitation of opportunities through knowledge, market, institutions, etc. as well as the creation of LT-KI ventures.

Hirsch-Kreinsen and Schwinge (2011) relate LT-KIE firms’ competitive advantage to the abilities of introducing innovative products or processes by the exploitation and integration of technological advancements of other sectors mainly high- and medium-high-tech. According to them the impact of KIE at the firm level relates to technological development and capability building in order to create new market opportunities. However, there is no research or any approach to explain firm-level success and failure at the stage of LT-KI venturing. While there is some talk on competitive advantage

and capabilities this discussion remains caged within the borders of the innovation theory and not the field of entrepreneurship.

Therefore, existent theory and empirical research has not so far offered deep insight or strong constructs of the LT-KIE topic into the direction of understanding a KI-LT new venture's survival and growth. In other words there is actually a gap in the understanding and conceptualization of LT-KIE which addresses the very LT- KI venture creation from business idea to established low-tech business, not yet discussed by KIE researchers. Based on this discussion, the main research question is then:

### **HOW AND WHY CERTAIN LOW-TECH BUT KNOWLEDGE-INTENSIVE VENTURES SURVIVE EARLY DEATH AND PROSPER WITHIN MATURE ECOSYSTEMS?**

In sum, the LT-KIE literature underscores the importance of a variety of factors, resources and innovation-related capabilities, but little work examines these from a new venture's survival perspective. With so much attention devoted to the conceptualization of KIE, significance of resources and skills, and the role of knowledge and innovation, the LT-KIE literature has been concerned primarily with "what" questions. There has been less attention paid to "how" questions. In relevant research so far, how LT-KI entrepreneurs/ entrepreneurial teams recognize or create opportunities, how they collect and process information, knowledge and other resources, how they arrive at valuations, and how they decide to act and succeed are issues not addressed by existing KIE theories. Therefore, it seems to be a gap in the understanding of the *entrepreneurial approach* of the LT- KIE phenomenon regarding the mechanisms by which new founders and founding teams will accumulate the bundle of resources, knowledge, skills and other inputs which have been quite expensively investigated in KIE literature.

The purpose then of the present research is to contribute to the comprehensive understanding of KIE as a mechanism for the transfer of multifaceted knowledge into *innovative economic entrepreneurial activities in low-tech sectors* and to shed light on its unclear inter-relationships with determining venture-related factors. From a definition that proposes that KIE are new firms that are innovative and knowledge intensive, some key dimensions important for the theoretical conceptual and empirical analysis stem out. In its general view LT-KIE follows the KIE definition and therefore regards new knowledge and innovation-based venturing. Therefore, innovation, knowledge, venture creation with resources and capabilities, as well as entrepreneurial factors regarding the entrepreneur, the firm and the environment as derived from relevant literature, will be the initial building blocks for the preliminary attempt to explore further low-tech knowledge-intensive entrepreneurship.

## INNOVATION

In the low-tech context, KIE is a mechanism of implementing an innovation which goes beyond the existing knowledge and it is new and significant to the sector or the product field. Accordingly, innovation constitutes a crucial building block of LT-KIE.

As indicated by the literature review during the last ten years there has been a rather significant interest for low-tech industries. Researchers have dealt with LT innovations and innovation activities and have found out that they are not necessarily the result of systematic research and development (Pavitt et al., 1987; Henderson and Clark, 1990; Napolitano, 1991; Walsh, 1996; Rametsteiner 2000; Robertson, et al., 2003; Bender, 2004; Caloghirou et al., 2004; Hirsch-Kreinsen et al., 2005; Robertson and Patel, 2007; Hirsch-Kreinsen, 2008; Böheim 2008; Segarra-Blasco, A., & Arauzo-Carod, 2008; Lichtenthaler, 2009). Research has been advanced with the engagement of the knowledge factor; alternative sources of knowledge and distributed knowledge bases have been intertwined with the spatial dimension of innovation (Granstrand et al., 1992; Lundvall and Johnson, 1994; Liebeskind, 1996; Nonaka and Konno, 1998; Howells, 2002; Rigby and Zook, 2002; Smith, 2000, 2002, 2003; Hirsch-Kreinsen et al., 2003 and 2005; Bender, 2004; Robertson and Smith, 2008; Malerba, 2008 and 2005; Burger – Helmchen, 2008; Grimpe and Sofka, 2009; Chen 2009; Tsai and Wang, 2009, Stam, 2009). According to both literature and empirical findings (e.g. Gupta and McDaniel, 2002; Hirsch-Kreinsen, 2008), low-tech firms seek mainly new technical and practical knowledge linking external knowledge with the firm-specific knowledge base (Bender and Laestadius 2005; Medanoça 2009; Robertson and Smith 2008) relying on training and highly qualified personnel skills.

Accordingly, LT firms have been found to engage mainly in frequent changes or improvements of process technologies and new product development (Hirsch-Kreinsen 2008a, Robertson and Smith 2008, Robertson et al. 2009). While a very small percentage of individual low-tech firms develop R&D activities, the majority apply mainly open innovation (Hirsch-Kreinsen and Jacobson, 2008; Likar et al., 2008). Process, organizational and marketing innovations are more common (Heidenreich, 2009), while product innovations are in their majority incremental (Bender, 2004). It is also argued that cumulative incremental innovations are quite significant since they can expand, extend and leverage technological trajectories and can cause major economic impact (Dosi, 1982). A significant feature of low-tech innovation is the engagement of many stakeholders all along the value chain in open innovation. Suppliers have been found to be of utmost relevance, since low-tech firms rely heavily on raw material, machine and equipment technological advances (Bender, 2004; Heidenreich, 2009). In this context LT firms are widely termed as “supplier-dominated firms” referring to Pavitt’s taxonomy of sectoral innovation modes (Heidenreich, 2009; Robertson et al., 2003). However, they can also be

key users of high-tech ideas (Santamaria et al., 2009) contributing significantly to the development of technologies and knowledge diversification directed to new technological fields (Mendonca, 2009). However, even in the cases of LT-KIE, the relationship that exists between KIE and innovation is still straightforward; KI-LT entrepreneurs should transform new, knowledge-based ideas into economic activity. In order to succeed, the resulting knowledge-based innovation should go beyond the existing sectoral or product field-specific knowledge base by creating new knowledge, new ways of problem solving or new processes, products as well as new markets not applied or unknown in the industry before (Hirsch-Kreinsen and Schwinge, 2011). In other words such innovations should be novel to the whole sector and thus creating the potential for the new venture to create new opportunities or otherwise develop a competitive advantage in order to enter the broader mature market in direct or indirect ways (e.g. get a share or by creating a niche market). Therefore, the producing innovation is strongly related to the novel business idea the entrepreneurs / entrepreneurial teams will develop in order to establish the new business. Sticking always to the fact that innovation is not born inside research or academic labs as in the cases of high-tech innovation, the following questions then emerge:

## HOW DO LT-KI ENTREPRENEURS/TEAMS CREATE INNOVATIVE KNOWLEDGE-INTENSIVE BUSINESS CONCEPTS?

### *Knowledge*

Searching the literature, knowledge intensiveness in LT sectors was heavily questioned through kinds of knowledge and ways of combining existing codified knowledge with practical knowledge in a competitive way (Napolitano, 1991, Pavitt, 1984, Lichtenthaler, 2009, Robertson and Patel, 2007, Hirsch-Kreinsen et al. 2005), and a clear orientation to innovation (Heidenreich 2009, Fagerberg, 2005).

A major aspect therefore regards the importance of **trans-sectoral knowledge bases** (Bender and Laestadius, 2005; Hirsch-Kreinsen, 2008) and the broader need to transcend sectoral limits in cases of LT-KIE. Based on Robertson and Smith's (2008) emphasis on the particular significance of the "distributed knowledge bases", we expect that firms and individual entrepreneurs alone will not be able to be the drivers of KIE processes; instead they have to connect with actors, resources and opportunities from well outside the sector. Thus, accumulated knowledge can support a new way of combining trans-sectoral inputs or resources based on exploitative learning processes. Therefore, it seems that there are major differences between high-tech and low-tech KIE; the origins of high-tech innovation rely often - if not always - in out-of the lab, R&D-based technology followed by patents and other types of appropriability measures (Adams, Fontana and Malerba, 2012) and based on

sound scientific and technological knowledge. This does not seem to be the case regarding low-tech KIE where innovation activities are primarily based on “practical and pragmatic ways by doing and using” (von Tunzelmann and Acha, 2005). Yet, it is not easy to draw clear distinguishing lines between scientific knowledge and practical knowledge. While practical knowledge can be found in the context of operating processes, LT firms use and apply theoretical knowledge such as engineering knowledge or even R&D knowledge elsewhere produced. On the other hand, process innovations even if of incremental type entail a complex bundle of different pieces of knowledge which is not entirely practical and are mainly intramural, i.e. developed by the staff of the firm.

However, the science-based or technological knowledge within KIE does not have to be created by the entrepreneur or the diversifying low-tech firm. External sources of knowledge seem to be essential for low-tech innovation (Cockburn and Henderson, 1998; Santamaria et al., 2009). A growing number of researchers suggest that different forms of collaboration enable firms to engage in innovation (e.g. Chesbrough, 2003; Lichtenthaler and Ernst, 2009). However, innovation occurs through new combinations of resources, ideas, and technologies imposing a need for constant inflows of knowledge beyond firm- and sector-level boundaries (Chesbrough and Crowther, 2006). Accordingly, the third edition of the Oslo Manual (OECD 2005) has an expanded coverage of knowledge flows and the role of linkages in the innovation process. In its latest edition it thoroughly addresses innovation in less R&D-intensive, so-called low-tech industries implying the notion of open innovation. According to Robertson and Smith (2008) production relevant knowledge is distributed across firm-specific, sectoral or product-field specific and widely applicable knowledge-bases, whereas scientific-based knowledge is applied at every level. Collaborations can be with any type or organization such as universities or research institutes (Griliches, 1995; Caloghirou *et al.*, 2001), suppliers and customers (von Hippel, 1988; Brown and Eisenhardt, 1995; Joshi and Sharma, 2004; Cousins *et al.*, 2011), or any type of networks, alliances or joint ventures with other firms holding relevant knowledge (Chiesa and Manzini, 1998; Hagedoorn, 1993). A key aspect regards the correct balance between the development of internal knowledge (e.g. intramural R&D) and the adaptation of the acquired external knowledge.

## VENTURING

LT-KIE regards **ventures** which are responses to innovative opportunities, emerging from knowledge in the form of new technology, new markets or even new ways of internal or external resources' exploitation. Since KIE has been considered as a significant mechanism through which new entries in the markets (in the form of new firms or diversification of existing firms) bring new ideas, products,

services and processes (e.g. Radocevitz et al., 2010; Chaminade and Edquist, 2006), researchers have explored a significant range of factors; these factors can be broadly divided into those referring to the entrepreneur, to the firm, and to the environment within which firms and entrepreneurs operate. They are significant since they shape the process of KIE in terms of enabling or constraining entrepreneurial opportunities to implement an innovation. For example, Radosevici's (2010) systemic approach of entrepreneurial opportunities offers such a list of environmental factors (scientific/technological, sectoral, demand, social cultural, institutional). In this systemic perspective entrepreneurial opportunity is constituted by technological, market and institutional opportunity that are understood as complements and are matched by the entrepreneurs.

The transition from venture creation to an early survival and continuation of the new firm has been also extensively explored and attributed to individual characteristics of the founders, the resources, the process and the environmental conditions (e.g. Gartner, 1985; Ardichvili & Gasparishvili, 2003; Beugelsdijk and Noorderhaven, 2005; Davidsson, 2006; Johnson et al., 2006; Kessler et al., 2012). Founders, firm, and contextual characteristics of new business ventures have been also explored regarding KI cases of high-tech industries or in general (e.g. Breschi, Malerba and Mancusi; Buenstorf (both in Malerba, 2010); Caloghirou et al., 2012; Camerani et al., 2012).

Malerba and McKelvey's (2010) "KIE model" provided a novel conceptual framework, since active choices were made about the conceptualization of specific processes, key notions, parameters and characteristics of KIE. The phenomenon has been defined in terms of individual firm content of its human capital, irrespective of the sector. Human capital can be measured in terms of the education of the entrepreneur, the skills of the labor force, and so on. Accordingly, specific pre-firm assets (finance, resources and entrepreneurial perceptions) are translated into venture performance and growth through internal management, organization and networking. However, the source, quality and type of inputs and resources which could influence the success of LT- KIE as much as the internal management processes of the next phase are unexplored. For example, while classical theory on entrepreneurship has employed various classifications of resources and capabilities especially after the engagement of the resource based view (e.g. Amit and Schoemaker, 1993) in order to explain venture creation, this remained too vague in LT-KIE cases.

Actually, the task of attracting resources for a new venture has been assigned among the greatest challenges that new entrepreneurs face (Brush, Greene, & Hart, 2001; Ravasi and Turati 2005; Romanelli 1989; Stuart and Sorenson 2003), since limited resources jeopardize survival (Arthurs & Busenitz, 2006). Taking into consideration the fact that knowledge is a core resource of LT-KIE there are certain questions that remain unanswered. For example, an academic spin-off has access to specific knowledge; on the contrary it is highly questionable **how LT-entrepreneurs locate the new**



**sources of knowledge, how they manage access to these sources, how they use knowledge in order to produce innovation and how they are going to transform the result into production lines, products and market success.**

An interesting approach seems to be the Hirsch-Kreinsen and Schwinge model (2011) for low-tech industries which refers to the need of certain firm-level or individual-level capabilities in order to produce innovation. Even since the beginning of their research on LT-KIE, the authors regarded the activities at the level of individual firms or entrepreneurs to be an *indispensible prerequisite* for KIE in LT sectors, as the mediator of renewal of a whole system by making use of external opportunities. Attempting a cross-reference to conceptual considerations on the innovativeness of LT companies (cf. Bender and Laestadius, 2005), the authors stressed that this could be a matter of specific capabilities, a term provided by the well-known “resource based” approaches. The core message of this approach is that LT-KIE processes may be analyzed in terms of capabilities for *orchestrating and mobilizing knowledge and other resources at the disposal of actors and firms* (cf. Teece and Pisano, 1994). These capabilities are strongly interlinked with the knowledge bases; existing knowledge is the requirement for these capabilities development through the identification and effective integration of novel knowledge, while these capabilities lead to the specific knowledge expansion which constitutes the main feature of LT-KIE. Accordingly, major LT-KIE capabilities for Hirsch-Kreinsen and Schwinge are the *capabilities to question existing knowledge and to identify and acquire (new) relevant knowledge from other knowledge bases*.

However, this capability aspect approached mainly the innovation-side and not the entrepreneurial side of LT-KIE. The authors referred to it as “innovative capability” incorporating the “transformative capability” and “configurational capability” of Bender and Laestadius (2005), Bender’s (2004) synthesizing competence, or the somewhat older “combinative capability” introduced by Kogut and Zander (1992) and the architectural competence described by Rebecca Henderson and Kim Clark (1990).

In spite the above ones, there are hardly any other efforts made to identify firm-specific capabilities (and their dimensions) that can be sources of competitive advantage, or explain how combinations of competences and resources can be developed, deployed, and protected in order to start a viable new LT-KI venture. Although the notion that the nature of firms’ pre-entry capabilities determines the direction of expansion as firms survive and grow is not new (Nelson and Winter, 1982, Grant, 1991; Penrose, 1995), KIE models so far have focused more on the mechanisms of knowledge and innovation regarding capabilities; they seem to have neglected the entrepreneurial side of the issue. Several writers have lately offered insights on the important links between knowledge creation and its commercialization particularly at the early stages of a new venture. The capabilities perspective

seems to be missing while the quotation of Zahra et al. (2006) is still popular; "...research has not provided a compelling explanation for the ability of some new and established companies to create, define, discover and exploit entrepreneurial opportunities".

Another issue of concern not well captured in KIE literature, according to our knowledge, regards the role and significance of the **initial competitive advantage** (CA) a new venture builds in order to survive and prosper. For Hirsch-Kreinsen and Schwinge (2011) the outcome of the KIE process is defined in terms of *technological innovations* as the direct result of this process and the *impact* of KIE innovations. In entrepreneurship literature the term of initial competitive advantage has been so far subject of discussions on the significance of resources and the importance of the founding team (e.g. Autio et al., 2009; Davidsson et al., 2003; Vanhoute et al., 2010). Russell (1989) claimed that creativity and innovative spirit give the new-born entrepreneurial organization its initial competitive advantage. Yet, while there are well developed theories on how to create and sustain the competitive advantage of established organizations, there are almost no explanations of **how new ventures establish their initial competitive advantage especially in cases of low-tech venturing**<sup>1</sup>.

Furthermore, new firms, once established, often face resource base weaknesses (Singh et al., 1986) and are confronted with subsequent performance loss if these weaknesses are not dealt with. The nascent entrepreneurship literature indicates that it is necessary for entrepreneurs to create and adapt the resource base of the new firm (e.g. Garnsey, 1998; West and DeCastro, 2001). Yet, this issue is so far both theoretically and empirically unexplored within the LT-KIE literature. However, a study of Protogerou and Karagouni (2012) indicated that the evolution of new knowledge-intensive ventures may be related to the creation and development of dynamic capabilities. In the same vein, Zahra, Sapienza, and Davidsson (2006) consider that "new ventures need unique and dynamic capabilities that allow them to survive, achieve legitimacy, and reap the benefit of their innovation". In addition, there is a limited but gradually increasing research on DCs regarding newly-founded firms with a number of empirical studies mainly of high-tech sectors, which indicate that new ventures need dynamic capabilities to reconfigure or modify their initial and rather poor resource bases in order to survive and grow (e.g. Arthurs & Busenitz, 2006; Zahra & Filatotchev, 2004; Grande, 2011). For example, Stam et al. (2007) found certain dynamic capabilities as most likely to accompany high-tech start-ups' growth. The relative empirical studies regarding low-tech sectors are extremely few. Telussa et al. (2006) analyzed the new firm growth in association to dynamic capabilities using a sample of mostly low and medium-tech firms. In spite the above assumptions the issue is still far

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<sup>1</sup> Considering the fact that patented technologies and R&D results can be strong initial competitive advantages in cases of high-tech ventures. For example, a unique innovation is the motivation for the start-up of a life science firm (Audretsch, 2001), and innovation sets the strategic path of life science firms (in Carrick, 2012)

from clear: **how can then just established low-tech ventures overcome resource base weaknesses and evolve?**

A perspective of particular importance in LT-KIE regards the assumption that the phenomenon includes not only newly founded companies as denoted by Malerba and MvKelvey (2010) for high-tech sectors, but cases of change processes in established companies as well. This is due to a series of reasons and more precisely due to

- a) the competitive pressure; existing low-tech firms are almost forced to change their competitive situation by adopting an increasingly reflective approach towards established practices and by looking for significant innovations (Hirsch-Kreinsen and Schwinge, 2011; Trigkas et al., 2012).
- b) the declining course of the most traditional sectors and the global competitive pressures; it is quite difficult and rather risky for young entrepreneurs to start new low-tech companies (see for example the textiles and clothing industry)
- c) the strong path dependency and the technologically established situation of low-tech sectors; it is quite difficult to come up with novel business ideas capable to allow new low-tech ventures enter existing mature and saturated markets and be viable

<b>Main research question:</b>
<i>How and why</i> certain low-tech but knowledge-intensive ventures survive early death and prosper within mature ecosystems?
<b>Guiding Research Questions</b>
a) How do LT-KI entrepreneurs/teams create innovative knowledge-intensive business concepts?
b) How do LT-KI entrepreneurs / entrepreneurial teams locate the new sources of knowledge, manage access to these sources and use knowledge in order to produce innovation and how do they transform the innovative result into production lines, products and market success?
c) How can new LT-KI ventures overcome resource base weaknesses and evolve?

Table 1: Summary of main and sub – research questions

LT-KIE is expected to be found more within established organizations but it is quite ambiguous if KIE will mean the same in both modes and whether they will share the same characteristics. For example, how important will the role of the existing knowledge pool of the parent company be? Will its organized routines play a positive or negative role in corporate venturing? How will the agents seek novel knowledge? What will be the role of existing resources and capabilities? Furthermore, while existing financial and human capital can solve relative problems, on the other hand technological or institutional path dependencies may create serious problems and core rigidities. This is an issue not

yet addressed in detail in LT-KIE research. Therefore, *differences are expected to be found in most if not all the above LT-KIE building blocks regarding the emergence of knowledge-based innovation, the entrepreneurial process, the factors, constraints and opportunities as well as the evolution paths and performances.*

## CONCLUSION

There is a gap in the understanding of how LT-KI ventures are created, survive and grow within their mature and highly saturated business ecosystems. Literature has offered a significant amount of insights related to the basic building blocks of LT-KIE, i.e. knowledge, its sources and ways of exploitation, knowledge-intensive innovation and mechanisms and capabilities of reaching it, as well as types of LT-KIE ventures, among others. Furthermore, there is a plethora of skills, entrepreneurial characteristics and other antecedents and factors used as input, KIE management and output in KIE processes. These valuable constructs can assist the further exploration of the topic called low-tech knowledge-intensive entrepreneurship in order to understand how LT-KI entrepreneurs and entrepreneurial teams recognize or create opportunities and transform them into successful knowledge-intensive business capable to survive the stagnancy of traditional mature markets. By posing the research questions summarized in Table 1, we purport mainly an *entrepreneurial approach* of the LT- KIE phenomenon.

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## THE ENERGY CURRICULUM: CHALLENGING THE HIGHER EDUCATION IN GREECE & CYPRUS

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### ABSTRACT

The size and prospect of drilling substantial offshore oil and gas reserves in the Eastern Mediterranean, but also in the Ionian Sea, and the new requirements for development of extended energy infrastructures, have an unprecedented capacity not only to turn-around the current state of the economies of Greece and Cyprus, but also to profoundly shape their future economic, social, production, employment, geopolitical and geo-economic profiles for at least the coming 30 years. Accordingly, the need to reformulate their curriculums of higher education arises as an imminent strategic priority.

Considering that "energy" consists, most likely, the vastest discipline to study, the author asserts that the future energy curriculums in the two countries will need to encompass at least the following features: new-disciplinary, interdisciplinary, sustainability, cross-country and cross-region oriented (in the context of Eastern Mediterranean, Middle East, South-Eastern and Central Europe, Black-Sea).

The aim of this article is three-fold: firstly, to review the profile, structure, and penetration of energy related studies in the academic discipline of social sciences, as extracted from the curriculums of universities in Greece & Cyprus; secondly, to provide a literature review of respective curriculums worldwide and assess the suitability of such programs in the local context and perform comparisons with the global context; thirdly, to use the outcome of this paper as an input for other parallel work, in the structuring and development of a new

energy curriculum proposal in the fields of economics, business, finance, and management studies in Greece and Cyprus.

**Keywords:** *education management, higher education, energy curriculum, energy economics, management, finance, business, Greece, Cyprus*

## INTRODUCTION

The size and prospect of drilling substantial offshore oil and gas reserves in the Eastern Mediterranean, but also in the Ionian Sea, as evidenced in the last years in the case of Cyprus, and recently by geological and seismic data in the case of Greece, along with the need for development of extended energy infrastructures, have an unprecedented capacity not only to turn-around the current state of the economies of Greece and Cyprus, but also to profoundly shape their future economic, social, production, employment, geopolitical and geo-economic profiles for at least the coming 30 years. These developments are further discussed in the next section of the paper.

In parallel, EU's energy strategy for the period up to 2020, builds on eight priority corridors for electricity, gas and oil. Accordingly, on October 2013, a number of 248 energy infrastructure projects of common interest were selected and assessed as the most critical to implement from a European perspective (European Union, 2014a). The respective priority corridors to cross or be undertaken by Greece and Cyprus are expected to assign to both countries a major role or even establish them as a regional energy hub; these corridors are presented in more detail in the third section of the paper, in order to emphasize the significance of the subject.

In turn, in the fourth section of the article, the structure and penetration of energy related studies in the academic discipline of social sciences are examined, based on a review of the existing curriculums of universities in Greece and Cyprus; finally, by performing a literature review of respective curriculums worldwide, it is evaluated the suitability of such university programs in the local context and comparisons are performed with the global context.

## OFFSHORE OIL AND GAS POTENTIAL IN GREECE AND CYPRUS

The emerging opportunities in the areas of offshore oil and gas exploration, extraction and management in Greece and Cyprus, have an unprecedented potential to reshape their entire profiles, at least during the first half of the 21st century. As the Greek PM announced in October, 2013 in the Hellenic Initiative forum in the United States, Greece, Cyprus and Israel have the capacity to cover the 50% of the needs in natural gas in Europe during the next 30 years (SKAI News, 2013).

More recently, the Greek Environment, Energy and Climate Change Minister presented on July 1<sup>st</sup>, 2014 Greece's programme for offshore hydrocarbon exploration concessions in the Ionian Sea and south of Crete, during an event held in London. He presented the findings of seismic surveys in the area and also analysed the broader geopolitical framework, ahead of a tender to be launched in the coming period. The presentation included data from geological surveys covering 225,000 square km and the interpretation of this data, carried out by the French oil and gas consultancy BEICIP-Franlab. The Greek minister described the country's potential as an energy hub, that stands "at the crossroads of western and southeast Europe and the new and traditional sources, making Greece the EU's gateway for the Southern Corridor".

The tender will be for test drilling in 20 blocks, defined on the basis of 50 parameters that include the depth of the seabed, geology and the environmental conditions revealed by a Strategic Environmental Impact Study, as well as the data from the seismic surveys. The minister's presentation included the legal and financial framework that will govern the exploratory drilling, such as a new law on concessions incorporating the latest trends and best practices internationally, a stable and predictable environment for investors, a favourable tax regime (halved from 40 pct to 20 pct) to make investments competitive, the Hellenic Hydrocarbon Resources Management SA company set up to supervise the sector, while stressing this would be governed by EU rules on the safety of offshore drilling activity (ANSA News, 2014).

In 2011, significant offshore reserves of approximately 7 trillion cubic feet of natural gas were found in Cyprus' Exclusive Economic Zone (EEZ). In October 2013, Houston-based Noble Energy, the licensee for block 12 in Cyprus' EEZ, performed appraisal drillings in block 12. The results have confirmed natural gas reserves of 3.6 to 6 trillion cubic feet (tcf), with a gross mean of 5 tcf.

At a second licensing round, licences for hydrocarbons exploration in offshore blocks have been awarded by the government for blocks 2, 3, 9, and 11, all adjacent to block 12. Specifically, blocks 2 and 3 were licensed to a consortium of Italy's ENI and Kogas from South Korea, block 9 to a consortium of the French company Total (operator), Novatec and GPB Global Resources. Total was also granted hydrocarbon exploration licences in blocks 10 and 11, after signing two production sharing contracts with the Ministry of Energy in February 2013. Total has also been granted a licence by the Agriculture Minister for seismic exploration for oil and gas in block 10 and in parts of blocks 6, 7 and 11 of Cyprus' EEZ.

More licences are due to be awarded as the government continues to evaluate the bids for the remaining blocks, with the exception of blocks 1, 4 and 13 for which no bids have been made. The government expects to complete the required infrastructure, including the pipelines and liquefaction plant, by 2018 and begin exporting natural gas in 2020 (Antoniou, 2014).

Speaking at a conference organised in July 2014 by the European Commission and the Governments of Cyprus and Malta, the country's Minister for Energy, Commerce, Industry and Tourism, underlined that "Cyprus, as the southern most EU member state in a volatile and troubled region, has the potential to become a regional liquefaction hub and contribute to the long-term geopolitical stability, promoting peace and economic development."

## **PROJECTS OF COMMON INTEREST IN GREECE, CYPRUS AND EASTERN MEDITERRANEAN**

In October 2011, the EC listed a complete package to boost trans-European infrastructure development in the areas of transport, energy and information society. Respectively, the Energy infrastructure package is comprised of legislative guidelines, proposals for setting up the infrastructure policies and the Connecting Europe Facility (CEF), providing financial aid (Kontakos and Zhelyazkova, 2014).

In this context, the term energy infrastructure covers electricity transmission lines, gas, CO<sub>2</sub> and oil pipelines, Compressed Natural Gas, Liquefied Natural Gas reception facilities and electricity and gas storage.

The trans-European energy infrastructure guidelines identify *eight priority corridors & four thematic areas* that must be implemented in the coming decade. Further, to materialize these corridors/areas into tangible projects, the guidelines consider a new approach of identifying energy infrastructure projects that can obtain the label of Projects of Common Interest (PCIs). Thus, to qualify for financial support under the CEF, projects must firstly be recognized as PCIs. The final Union-wide list was approved in October 2013 and includes 248 CPis, based on several criteria, such as a cost-benefit analysis (CBA), to demonstrate added value toward the achievement of EU's energy overall energy goals and cross-border benefits that can further act as a mechanism to facilitate cost allocation among EU members.

In Figure 1 are depicted the eight priority corridors included in the Energy infrastructure package (European Union, 2014b, c). Among these corridors, the *Southern Gas Corridor* is expected to be of particular interest in the cases of Greece, Cyprus and Israel, as it directly involves respective infrastructure development for the transmission of gas from the Caspian Basin, Central Asia, the Middle East and Eastern Mediterranean Basin to the Union to enhance diversification of gas suppliers.

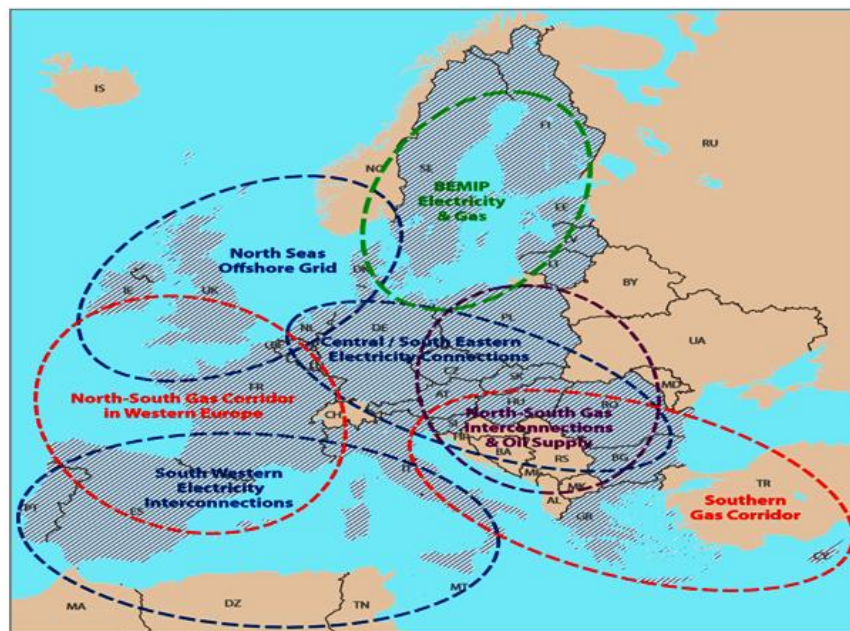


Figure 1. European energy infrastructure priorities for electricity, gas & oil; Adopted from © European Union – Directorate-General for Energy

The major strategic perspective of the Southern gas corridor is two-fold: to bring new gas sources to the EU, and diversify particularly concentrated markets in SEE. The rationale is to directly link the EU gas market to large deposits of gas in the Caspian Region & Middle East (estimated at 90.6 tcm; for comparison, Russian proven reserves amount to 44.2 tcm) and the Eastern Mediterranean basin. Furthermore, the gas fields are geographically even nearer than the main Russian deposits (Figure 2). The planned transit routes for these gas volumes are through Turkey, the Black Sea and the Eastern Mediterranean.

The pipeline components will also be improved for transporting substantial supplementary quantities of LNG to Europe, mainly from the Middle East. Initially this will be implemented with the construction of LNG reception points in Europe and via inter-connections to the wider network.

The strategic aim of the corridor is to accomplish a supply route to the EU of approximately 10-20% of EU gas demand by 2020, equivalent nearly to 45-90 bcma. Finally, the Southern Gas Corridor will essentially be an additional supply corridor to the existing ones from Russia, Norway and North Africa.

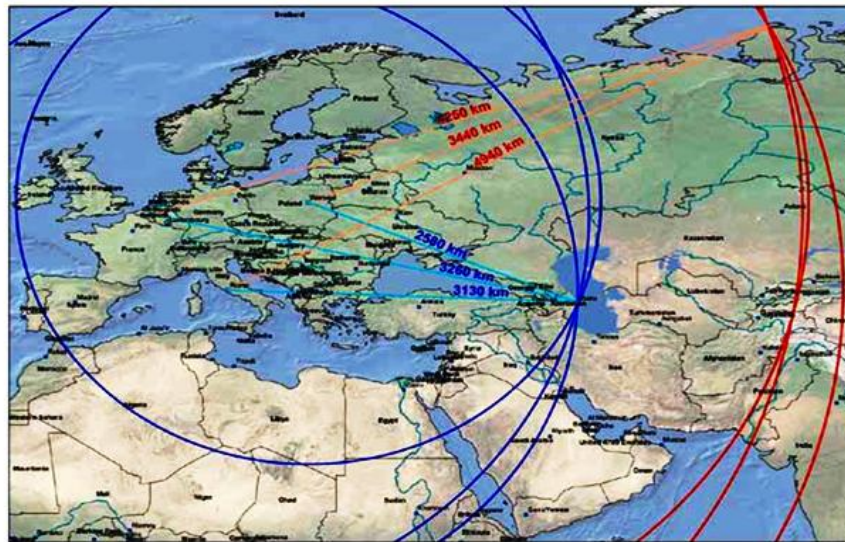


Figure 2. Comparison of distances of main Eastern gas supplies to main EU consumption hubs; Adopted from © European Union – Directorate-General for Energy

In Figure 3 below are depicted the specific projects in SEE and Eastern Mediterranean regions. Further to the Southern Gas Corridor already discussed, of particular interest is the development of a gas corridor for the transmission of gas produced offshore in the Eastern Mediterranean (mainly Cyprus and Israel). In addition, the *EuroAsia Interconnector* is already under construction to link Greek, Cypriot and Israeli power grids via the world's longest submarine power cable with length 287 km and a power rating of 2,000 MW, with expected completion by 2016.



Figure 3. European energy infrastructure priorities for electricity, gas & oil; Adopted from © European Union – Directorate-General for Energy

## A REVIEW OF ENERGY EDUCATION IN SOCIAL SCIENCES WORLDWIDE

A review of other worldwide studies has been performed by the author, on how energy related education is incorporated in universities curriculums (Kontakos, 2014). The main conclusions of the review include:

- The subjects of “sustainability” and “sustainable development” occupy significant part in the suggested curriculums (Blewitt *et al.*, 2004, Sherren, 2005). Several surveys have been performed since 2001 by universities in UK, US, Australia, Spain mainly in engineering studies (Desha and Hargroves, 2010).
- Renewable energy education has also attracted significant academic research. In the case of Turkey, it is addressed mainly by engineering courses and at encyclopedic level (Karabulut *et al.*, 2011).
- Several surveys aim to ascertain the extent of energy efficiency education (Desha and Hargroves, 2010) or carbon reduction education (Chen *et al.*, 2013). Zografakis *et al.* (2008), describe the results of an energy-thrift information and education project taking place in different levels of education in Crete, Greece, which records 321 students’ and their parents’ routine energy-related behaviour. Also, in a recent paper, undergraduate energy education in Greece is compared with relevant accredited engineering courses of the UK (Gelegenis and Harris, 2014).
- Energy and environmental policy have been two rapidly developing inter-related subfields within the broad area of natural resource policy which are of considerable contemporary interest (Hamilton, 1983).
- “Environmental economics” are an established subject globally, but only at a very limited extent in South-Eastern Europe (SEE) countries.

The major methodology used in the last decade to assess the extent at which energy education is incorporated in other fields is the questionnaire survey, principally at national level, and within engineering disciplines. However, there has not yet been a comprehensive assessment of the extent of various contents/directions included in energy education globally, or an assessment of whether critical energy literacies have been incorporated into social sciences curriculum.

The author suggests several possible reasons for this lack of a comprehensive assessment, including:

- Difficulty in assessing the extent to which “energy” knowledge & skills are embedded within the curriculum, due to the wide range of the term.
- The time and resource intensive nature of conducting a global survey across the thousands of departments offering social science degrees in many different languages.
- Potential reluctance of professional organizations, accrediting bodies or the universities themselves to reveal the results of performed surveys, as these may consist a competitive advantage in their planning, resourcing and accreditation programmes.
- Globally, a priority and traditional focus has been given in energy context in engineering curriculums only; As such, it is characterized by a lack or low degree of inter-disciplinarity.

- In some countries, such as in the cases of Greece & Cyprus, the lack of related previous experience in industrial development, has further limited the relevant knowledge.

## ENERGY EDUCATION IN GREECE AND CYPRUS

A review of the existing curriculums of universities in Greece and Cyprus was performed, to examine the structure and penetration of energy related studies in the academic discipline of social sciences. The main conclusions aforementioned by the author in the previous section apply also in the case of the two countries. Further, it can be concluded overall that higher education in Cyprus is characterized by the existence of more advanced levels of energy related curriculums, most of which have gradually appeared in the last five years, in comparison with Greece, where an effort has only been recently undertaken to introduce and establish related courses. Particularly, main conclusions from the review included:

- Lack of a comprehensive assessment at a national level to assess the extent of various contents/directions included in energy education in Greece and Cyprus;
- No local or very limited academic research was identified to have been performed related to the subject;
- “Environmental economics” and “Energy economics” cannot be supported that have been established as a subject of studies in Greece, particularly, and Cyprus;

Indicatively, energy related higher education, cooperation and research provided in the two countries has been initially associated with the activities underlined in the next paragraphs.

### a) Cyprus

Some Higher Education Institutions have started to consider the opportunities provided by the rising new industry and offer a number of vocational and academic programmes of study in Bachelor and Master’s level relevant to the field.

1. In late 2007, MIT and the Cyprus Institute (CyI) launched a research and educational collaboration between energy, environment and water programs at the two institutions. Since then, the initial joint research projects have made substantial progress, new ones have been introduced and several postdocs funded by CyI have visited MIT to participate in the research, mainly in the fields of energy systems and engineering. Also, coordinated by CyI, an international group of scientists is involved with climate change studies and their social, economic and environmental consequences in the Eastern Mediterranean and North Africa.

MIT is collaborating on projects through its Cyprus Institute Program for Energy, Environment, and Water Resources (CEEW), which is housed within MIT's Laboratory for Energy and the Environment (LFEE). The LFEE cooperated in the development of CyI's Energy, Environment, and Water Research



Center (EEWRC). The EEWRC works in close collaboration with the Massachusetts Institute of Technology (MIT), the Max Planck Institute for Chemistry, the Cyprus Research Promotion Foundation (RPF) and many national institutions and organizations in Cyprus and the region. (EEWRC site, 2014).

2. From the review performed by the author, the most advanced effort to establish energy related courses has been undertaken by the University of Nicosia. Particularly, the following programmes of interest were identified (University of Nicosia site, 2014):

- BSc Energy, Oil and Gas Management, that takes place in 8 semesters. The program provides students with overall knowledge relating to the field of energy, oil and gas management. Students obtaining the Bachelor of Science degree in Energy, Oil & Gas Management have several opportunities for further studies: a) A Master of Science (MSc) degree in Oil and Gas or Energy Technology; b) Another related post-graduate degree such as the Master in Laws (LLM) degree with a related specialization. This Masters will not qualify them as lawyers but the knowledge gained will be substantial and very useful; c) A professional qualification, such as the ACCA or the Institute of Marketing for specialized knowledge in a business functional area which will be an ideal combination with their previous undergraduate background.

- Business Administration with Concentration in Energy, Oil and Gas Management (BSc, 4 years cycle) and Master in Business Administration with concentration in Oil, Gas and Energy Management (2 year cycle).

3. The European University Cyprus has established the following courses:

- Business Studies - Energy Resources Management (Oil and Gas), 4 Years, Bachelor of Business Administration. Graduates of the program are expected to be able to deal with financial and administrative matters relating to the areas of energy, oil and gas as well as the evaluation of the regulatory systems in the energy sector, environmental and climate change issues and renewable energy sources (European University Cyprus site, 2014).

4. The Levantine Training Centre (LTC) of ShipCon Limassol is a training centre of excellence for professionals involved also in the areas of Oil & Gas. LTC offers accredited and non-accredited courses covering a wide range of expertise in Continuous Professional Development of professionals. It has entered to agreements and formed strategic alliances with renowned world-class training providers with extensive experience and capabilities in the area of Oil & Gas professional training. The LTC courses are conducted in association with the London School of Energy Studies (LSES) and they are accredited by the Energy Institute of UK and professional bodies such as NEBOSH, IOSH and OPITO. (Levantine Training Centre site, 2014).

5. Finally, although not directly related to the subject of higher education, it is worthwhile to mention the Cyprus Energy Agency, which focuses on educational activities and presentations in schools in Cyprus. One of its main objectives is to provide systematic education, information and training sessions which address energy efficiency and renewable energy. Since April 2009, when began its education activities, the Energy Agency has visited more than 90 schools – covering all educational levels. The Agency has addressed more than 15,000 students and 1,000 teachers on the topics of renewable energy, energy saving, sustainable transport and environmental protection (Cyprus Energy Agency site, 2014).

Permanent Secretary of the Ministry of Energy, Commerce, Industry and Tourism, recently said that “according to a study by the Human Resources Development Authority, it is anticipated that more than 5000 jobs will be created in the hydrocarbon sector by 2019.” Therefore, he added, “all the players: the Government, academia and industry must come together to establish the supply chain of well trained professionals that this new industry demands to function efficiently, thereby maximizing benefits and meeting the high expectations of our society”. In this context, he said, “we have started a dialogue with a number of universities in Cyprus. At first, we are investigating the possibility of offering a number of scholarships to Cypriot graduate students on related subjects. We are also looking into the possibility of placing a number of students or recent graduates in companies” (Source: Famagusta Gazette, 2014).

#### **b) Greece**

The Department of International & European Studies of the University of Piraeus recently established a new Master’s Program in Energy (MSc in Energy): Strategy, Law & Economics, to run for the first time in the academic period 2014/15. This is the first Master’s program in Greece and one of the few programs in Europe dedicated to Energy strategy, law & economics. The curriculum of this Energy Master’s program has been designed under an interdisciplinary approach, echoing the demands and expectations of the market where strategy, policy, law and economics are closely intertwined. It aims at the direct access of its graduates in the market. Therefore, it incorporates, besides the scheduled lectures and seminars, talks and presentations by executives in companies of the energy sectors such as power plants, refineries and supply terminals, as well as academic visits in research institutes, regulatory authorities and think tanks.

After completion of the 2nd Semester and as part of the elaboration of their Master Thesis, students have the opportunity for practical training in companies and organizations related to the field (University of Piraeus site, 2014).

## **CONCLUSIONS**

Europe is at an unprecedented junction for its immediate energy future. To achieve its energy and climate goals of “20-20-20 by 2020” a number of 248 energy have been recently selected and assessed as the most critical to implement from a European perspective. In parallel, the discovery of substantial quantities of natural gas within the Exclusive Economic Zones (EEZ) of Greece and Cyprus, opens new perspectives and creates a new impetus for the two countries to become key European energy market players. The respective priority corridors and infrastructure projects to be developed in both countries are expected to establish them as a regional energy hub. Accordingly, the need to reformulate their energy curriculums in higher education arises as an imminent strategic priority.

The current energy curriculums in Cyprus can be considered as more advanced in comparison with in Greece, where are primarily limited in the field of engineering studies. In both countries, no comprehensive national study has been performed in the case of social sciences; accordingly, several reasons were underlined, both at global and local levels.

Considering that “energy” consists, most likely, the vastest discipline to study, the author emphasizes that the future energy curriculums in both countries will need to encompass the following features: new-disciplinary, interdisciplinary, sustainability, cross-country and cross-region oriented (in the context of Eastern Mediterranean, Middle East, South-Eastern and Central Europe, Black-Sea).

The critical role that the countries are expected to undertake by 2020, provide new opportunities for partnerships and collaborations with other countries with vast industrial experience and infrastructure. This will facilitate the development of strong academic programs and create a significant research basis in the region. It is only through investing in human capital that both countries can successfully manage and benefit from their natural resources in the coming years and ensure sustainable growth and innovation.

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## A NEW APPROACH FOR ESTIMATING THE EXPECTED FDI INFLOWS: THE TIP MODEL AND ITS APPLICATION IN THE TURKISH BANKING SECTOR

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### ABSTRACT

The aim of the paper is to present a newly developed top-down model, the so-called TIP model, to assess the potential FDI inflows in the banking sector of a country. Asset valuation principles, which were applied by the buyer to the target in other M&A transactions and are based on the price-to-book ratio, are used as a benchmark for the estimation of future FDI inflows.

The main function of the TIP model, in order to quantify the potential size of foreign investment, is to convert non-foreign-owned shareholder equity values to potential FDI inflows, by using historical price-to-book valuations as a vehicle. Although this method is widely used in international business practice for the valuation of individual M&A transactions, in the case of the TIP model it is applied at a top-down level for the total sector, and as such provides a unique, practical way to estimate the expected inflows. Further, a scenario analysis can be performed, by using various combinations of the input parameters of the model, which can also assist governmental decision making regarding privatizations. The applicability of the model is compared with other existing approaches used in the determination of future FDI inflows. Finally, to validate the model's functionality, the Turkish banking sector is used as an applied case study.

**Keywords:** *Foreign direct investments, mergers & acquisitions, valuation model, TIP model, banking, international business, scenario analysis, Turkey*

### INTRODUCTION

Turkey has been a leading example of reform-driven growth acceleration in the period 2001–2011. The turning point in the revival of the Turkish economy could be identified as the period starting after 2002. The collapse of a vicious cycle of serious failures of macroeconomic policy, largely characterized by first, a vast, ineffective public sector that was accumulating public deficits, which in turn were monetized through a centrally controlled and insolvent banking sector, and second,

prolonged political uncertainty, culminated in the financial and economic crisis of 2000–2001. This crisis was the worst so far, and of such magnitude as to cause a wave of reforms. The financial sector liberalization reforms introduced since the 2001 crisis placed the Turkish banking sector on a sound foundation and attracted significant inward foreign direct investment (FDI), amounting to US\$39 billion during the decade 2000–2012 (CBRT, 2013; Kontakos, 2011).

The objective of this paper is to present a newly developed top-down model, the so-called TIP model, to assess the potential FDI inflows in the banking sector of a country; respectively, to validate the model's functionality, the Turkish banking sector is used as an applied case study.

Asset valuation principles that were applied from the buyer to the target in other M&As in Turkey were used as a basis for estimating future FDI inflows, and are incorporated in a newly developed and presented top-down model, the so-called TIP model. The paper asserts that the distinctive growth attractiveness, large size in total assets, low penetration of financial services, and low market share of foreign-owned banks in the Turkish banking sector, versus the CEE and SEE banking sectors, can trigger substantial FDI inflows to Turkey from banks in developed economies. The size of these future FDI inflows is attempted to be evaluated through the use of the TIP model. Additionally, inflows in the banking sector can have a multiplier effect in stimulating FDI inflows to other sectors and can spread a further new dynamic in the Turkish economy. In my view, however, geopolitical stabilization, internal political cohesion, and further democratization deepening in Turkey are prerequisites for this to be materialized in the medium term.

The paper is structured as follows: First, to introduce the reader in the specifics of the Turkish banking sector, its historical evolution is summarized, including FDI trends and privatizations, foreign M&A, and the capital size of investment. Second, considering recent local M&A deals in the Turkish banking sector, the aim is to estimate the total size of future FDI inflows, by using respective asset-valuation ratios and multiples incorporated in the TIP model. The conclusions follow in the last section.

As author of the article, I would like to express my gratitude to my ex-colleagues, Theodore Karakasis and Ioannis Tegopoulos, general managers in the International Activities of Eurobank EFG Ergasias, for their valuable implicit contribution of knowledge. Furthermore, the so-called "TIP Model," presented in the paper, has been named from the first-name initials of the aforementioned colleagues and myself. Eurobank EFG group is a European banking organization based in Athens, Greece, with total assets of €81.6 billion and presence that has previously reached 10 countries (as of end 2011).

## EVOLUTION OF THE BANKING SECTOR IN TURKEY

The presence of foreign banks in Turkey can be traced back in the 19th century (Banks Association of Turkey, 2009; Encyclopedia of the Hellenic World, 2008). In the period that began after the establishment of the Republic of Turkey in 1923 and lasted until 1980, the banking sector was primarily under the control and influence of a centralized government, and was part of a planned economic policy. No licenses were granted in this period for establishing new foreign banks, except in few cases.

In 1980, four foreign banks (among 40 banks in total) were operating in Turkey, controlling 3.0 percent of the total assets in the banking sector. The gradual integration of the Turkish economy with the international financial system, accompanied by a process of financial liberalization and the lessening of regulatory barriers to the entry of foreign banks, encouraged foreign direct investments (FDI) and accelerated the entry of foreign banks into the Turkish banking sector after 1980s. During this period, foreign banks generally expanded by opening and operating branches; they were mostly focused on wholesale banking to serve their corporate customers. As a result, 18 foreign banks had been established by 2001. Despite the increase in the number of foreign banks, the share of assets of foreign banks in the total assets of the banking sector remained low. The assets of the foreign banks represented 3.2 percent of the total assets of the 61 banks operating in 2001.

The serious involvement of foreign banks in Turkey coincides chronologically with the reforms and progress achieved in the aftermath of the 2001 economic and financial crisis in Turkey, which made the banking sector profitable and attractive to foreign investors.

The banking sector effectively resisted the pressures and systemic risks from the instabilities that emerged in the global financial system and markets during 2008–2009; Turkish banks did not turn to state financial assistance to improve their capital reserves. The average Tier 1 capital ratio has declined, owing to an increase in risk-weighted assets on the back of a rebound in credit markets, but has remained high. As of December 2012, the capital adequacy ratio was standing at 17.9 percent, well above the average in the European Union. Credit quality problems in developed economies, arising from the US subprime loan crisis and the euro area sovereign debt crisis, have affected indirectly the operations of foreign banks in Turkey. Potential buyers stand to benefit from the financial difficulties of a number of European and American banks, which invested in Turkish banks a decade ago and are now selling because of their own troubled balance-sheets. Citigroup, for example, shed half of its 20% stake in Akbank, among the country's top-five banks, in December 2013. Overall, deleveraging in the region by European banks has created opportunities currently exploited by Gulf banks.

As of December 2012, 49 banking institutions were operating in the Turkish banking sector; 32 of them were commercial banks (out of which 3 were state-owned deposit banks, 16 foreign banks, 12

private privately-owned deposit banks and 1 under the Deposit Insurance Fund), 13 were development and investment banks, and 4 were participation banks.

The commercial banks do not have participation accounts and the participation banks (dealing with Islamic banking) are not licensed to accept deposits. The development and investment banks are not allowed to issue deposit and participation certificates.

Mergers between Turkish banks have been rare, resulting in a high degree of concentration. The top 10 banks concentrated 87 percent of the total assets in the Turkish banking sector in 2012, 89 percent of the total net profit, 87 percent of the branches, and 84 percent of the employees (The Banks Association of Turkey, 2013).

A few large domestic banks, some state-owned and some private, dominate the financial sector. The private banks are often members of conglomerates with widely dispersed holdings throughout the economy. Banks often control as subsidiaries many major nonbanking financial institutions, such as insurance companies, mutual funds, factoring firms, and financial leasing companies (EIU, 2010). Turkey's largest lender in asset terms in 2011 and 2012 was the privately-owned Is Bank. Its main private-sector rivals include the state owned Ziraat Bank and the privately-owned Garanti Bank, Akbank, and Yapi Kredi Bank.

At end December 2012, majority foreign-owned banks accounted for 13 percent of Turkish banking assets, 13 percent of total deposits, 14 percent of total loans, 20 percent of the branches network, and 14 percent of the employees, according to the Banks Association of Turkey. The main foreign players, in order of asset size, are Finans Bank (majority owned by National Bank of Greece), Denizbank (owned by the Franco-Belgian bank, Dexia), HSBC (UK) and ING (Netherlands).

Several major banks that are majority-owned Turkish banks have minority foreign shareholdings. These include Akbank (10 percent is owned by Citibank Overseas Investment Corporation); Garanti Bank (25.01 percent is owned by the Spanish BBVA, Banco BilbaoVizcaya Argentaria S.A); Sekerbank (33.98 percent is owned by an asset fund of the Government of Kazakhstan); and Yapi Kredi Bank (Koc Financial Services is the owner of 81.8 percent, in which the Italian Unicredit holds a participation of 50 percent and thus indirectly controls the 40.9 percent of Yapi Kredi Bank). Also, Turk Ekonomi Bank, in which BNP Paribas (France) has a large minority share of 34.43 percent, merged with the local unit of Fortis in March 2011. BNP Paribas had acquired Fortis's Turkey unit when it bought the Belgian portion of the defaulted bank in 2009.

Based on the aforementioned minority participation shareholdings, foreign banks control an additional US\$70,771 million, or 9.7 percent of total assets. When this is added to their majority participation of 13.4 percent, the adjusted market share in total assets reaches 23.1 percent.



**Table 1. Turkish banks: Foreign investors' acquisitions from 2001 through 2013**

Year	Target	Buyer	Country of buyer	Deal value, millions of US\$	Stake %
2013	Citi Turkey (Consumer Banking)	Denizbank (Sperbank)	Russia	22	100
2013	AlternatifBank	Commercial Bank of Qatar	Qatar	448	70,8
2012	DenizBank A.S.	Sberbank	Russia	3.793	99,85
2012	Odea Bank	Audi Bank	Lebanon	300	100
2012	Eurobank Tekfen	Burgan Bank	Kuwait	359	99,3
2011	Garanti Bankasi	BBVA	Spain	5.800	24,9
2010	Millenium Bank	Credit Europe Bank NV	Netherlands	44	95
2008	Türkiye Finans Katılım Bankası	National Commercial Bank	Saudi Arabia	1.080	60
2007	Akbank T.A.S.	Citibank	US	3.100	20
2007	Oyak Bank	ING Bank N.V.	Netherlands	2.700	100
2007	Sekerbank	Turanalem Securities	Kazakhstan	610	33,98
2007	Turkish Bank	National Bank of Kuwait	Kuwait	160	40
2007	Garanti Bank (Settl. & Custody)	Deutsche Bank AG	Germany	115	100
2006	DenizBank A.S.	Dexia Bank	Belgium	3.221	98,9
2006	Tekfenbank	EFG Eurobank Group	Greece	182	70
2006-08	Finansbank	National Bank of Greece	Greece	5.271	90,1
2005	C Kredi Kalkinma	Bank Hapoalim	Israel	113	57,5
2005	Yapi Kredi Bank	UniCredit	Italy	1.395	57,4
2005	Garanti Bankasi	GE Consumer Finance	US	1.560	25,5
2005	Disbank	Fortis	Belgium	1.125	89,3
2005	TEB	BNP Paribas	France	217	42,1
2002	Kocbank	UniCredit	Italy	240	50
2001	Sitebank	Novabank	Portugal	3	100
2001	Demirbank	HSBC	UK	350	100

Source: Undersecretariat of Treasury, P. Kontakos (2014)

The Turkish banks acquired by foreigners, in the period that followed after the restructuring of the banking sector, are presented in Table 1. One of the most sizable acquisitions in financial terms was announced in November 2010 by the Spanish BBVA, which agreed to pay US\$5.8 billion for 24.9 percent of Garanti Bank, with an option to take full control in five years. General Electric was the seller of 18.6 percent for US\$3.8 billion and Dogus Group of an additional 6.3 percent for US\$2.1 billion. With an initial US\$1.8 billion investment in Garanti in 2005, GE Capital realized US\$5.2 billion in total proceeds, from dividends and the sale of the Garanti holdings, upon completion of the transaction.

The second acquisition in value was realized by the National Bank of Greece, which acquired a cumulative 90.1 percent stake in Finansbank for a total amount of US\$5.3 billion in the period 2006–2008.

Russia's biggest bank, Sberbank, is one of the newcomers with a chance of challenging the top five. In September 2013 it bought Denizbank for US\$3.8 billion, Turkey's tenth-biggest, from Dexia, a cash-strapped Belgian lender. The Russian bank is also adding 22 retail branches acquired by Citibank. Sberbank is the first Russian lender to buy a bank in Turkey. The deal would be the largest in Eastern Europe, the Middle East and Africa in 2013 and the biggest in Turkey since BBVA's acquisition.

Also, in 2008, the National Commercial Bank (NCB) acquired 60 percent of Türkiye Finans Katılım bank for US\$1.1 billion. NCB is the largest bank in Saudi Arabia; the acquisition represents the largest ever transaction in the interest-free Islamic banking sector in the world, and underlines the growing importance of this particular segment of the banking industry. It was NCB's first major foray outside Saudi Arabia's borders.

Based on the data of the Banks Association of Turkey, the total number of banking institutions decreased from 61 to 45 in the period 2001–2012, out of which 16 were foreign banks. Accordingly, the total assets in the banking sector have increased by 453 percent to US\$730 billion and the loans have increased by 1395 percent to US\$433 billion; the respective increases were significantly higher in the case of foreign banks.

Turkish banks were broadly profitable after 2002, although earnings were characterized by variability as a result of the impact of global financial turmoil. Profitability declined in 2008, but recovered by 52 percent in euro terms in 2009, as the spread between deposit rates and lending rates widened and loan provisions declined. Profit growth was much weaker at around 14 percent in 2010 and has remained stable in the period until 2013, reflecting the lower net interest income on contracting loan-deposit spreads, net interest margin erosion, intensified by mounting competition, and narrowing fees on relatively weaker loan originations.

Finally, as revealed by the relevant data, there is a significant expansion of the branch networks of foreign banks, which reached 2,012 branches in 2012 (or 20 percent of the total) from only 233 in 2001, whereas the staff employed in foreign banks within Turkey increased to 38,772 (or 21 percent of the total in the sector) from 5,395, and considerably exceeded the respective increases in the local banks. In particular, the total increase by 48,603 in employment in the Turkish banking sector during 2001–2010 can be attributed mainly to foreign banks.

## **THE TIP MODEL ASSESSMENT OF POTENTIAL FDI INFLOWS IN THE TURKISH BANKING SECTOR**

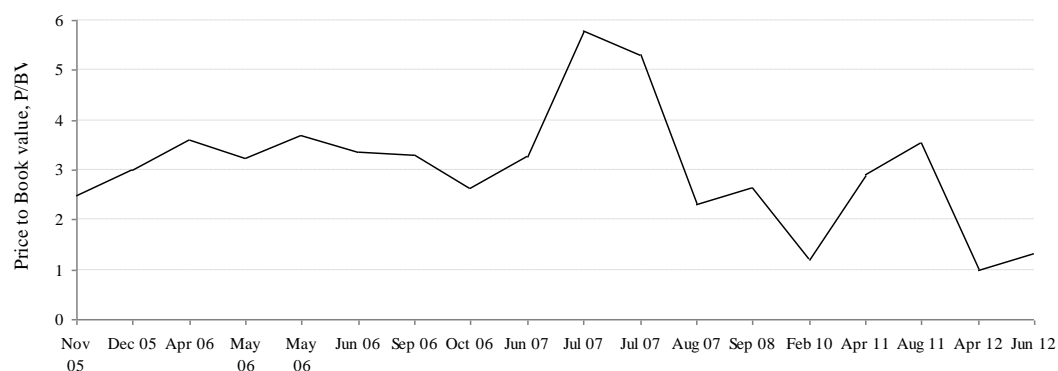
The aim of this section is to assess the potential FDI inflows into the Turkish banking sector by utilizing other recent deals or acquisitions as a benchmark. Asset valuation principles, which were applied by the buyer to the target in other M&A transactions in Turkey and are based on the price-to-book ratio (P/B), are used as a basis for the estimation of future FDI inflows. It can be argued that the price-to-book ratio is the most widely applied and quoted ratio in all bank acquisitions internationally, and particularly in the CEE and SEE region.

The price-to-book ratio (P/B), also known as the price-equity ratio, is the ratio of the market value of equity to the book value of equity, where the book value is the shareholders' equity on the balance sheet.

$$\text{Price-to-book ratio} = \text{market value} / \text{total shareholder equity}$$

In our case, the market value refers to the value paid by the acquiring bank to the target bank. To evaluate potential future acquisitions, and the respective amounts, previous disclosed price-to-book ratios from the period 2005–2012 are used as benchmarks. Overall, after a correction in the price-to-book ratios during the period of the global economic crisis, the price-to-book ratio started trending up again in 2011, pointing to an augmented international demand for Turkish banking assets, particularly in comparison with other regional markets; it declined again in 2012, reflecting the need of some European investors to divest from Turkey due to financial and capital difficulties in their home countries. As shown in Figure 1, the ratios range from a maximum of about 5.8 to a minimum of 1—that is, the price per share paid by an international investor to acquire a local bank in Turkey was within a range of 5.8 times the book value per share of the target, as when National Commercial Bank (NCB) acquired 40 percent of Türkiye Finans in July 2007, to 1 times the book value per share of the target, as in the case of Eurobank Tefen's acquisition of 99 percent by Burgan Bank of Kuwait in April 2012.

**Graph 1. Foreign bank acquisitions in Turkish banking sector; valuations of transactions**



Source: DealWatch, mergermarket, Bloomberg, P. Kontakos (2014)

In particular, the shareholder equity of local banks in Turkey was used to estimate potential FDI inflows in the banking sector, by applying as a multiple an average price-to-book ratio from previous transactions in Turkey. A top-down model was newly developed for this purpose, the so-called TIP model, as shown in Table 2, based on the shareholders' value of the local Turkish banks, which was US\$75,632 million as of the end of 2012. This value is derived from data of the Banks Association of

Turkey; the respective shares of foreign-owned banks in local banks (13.3 percent) and the minority participation shares of foreign banks in local banks (9.7 percent) were extracted from the total shareholder's equity in the sector.

Table 2. The TIP model estimation of potential FDI in the Turkish banking sector (in millions of US\$)						
	2012	2013	2014	2015	2016	2017
						<b>CAGR 2010-15</b>
<i>Total shareholders equity</i>	<b>98.202</b>	<b>108.022</b>	<b>118.824</b>	<b>130.707</b>	<b>143.777</b>	<b>158.155</b>
<i>Local banks</i>	75.632	79.261	83.022	86.911	90.924	95.057
<i>Foreign banks</i>	13.053	17.852	23.300	29.465	36.427	44.270
<i>Minority foreign participation</i>	9.517	10.908	12.503	14.331	16.426	18.827
<i>Total Foreign</i>	22.570	28.761	35.802	43.796	52.853	63.098
<i>Foreign share</i>	13,3%	17%	20%	23%	25%	28%
<i>Minority foreign participation</i>	9,7%	10%	11%	11%	11%	12%
<i>Total foreign share</i>	23,0%	27%	30%	34%	37%	40%
<i>Foreign acquisition of equity</i>		7.072	7.411	7.763	8.126	8.501
<i>Minority foreign participation acqvis.</i>		440	504	578	662	759
<i>Total Foreign acquisition</i>		7.511	7.915	8.340	8.788	9.260
	<b>P/B value</b>	<b>1,5</b>	<b>1,5</b>	<b>1,5</b>	<b>1,5</b>	<b>1,5</b>
<i>Annual FDI inflows</i>		<b>11.267</b>	<b>11.872</b>	<b>12.510</b>	<b>13.182</b>	<b>13.890</b>
<i>Present Value, Discount rate 5%</i>		10.730	10.769	10.807	10.845	10.884
						<b>Total FDI inflow</b>
						<b>62.722</b>
						54.034

Source: P. Kontakos (2014)

In turn, TIP model is based on the following conservative assumptions:

1. An average price-to-book ratio of 1.5 times in each future transaction in the period 2012–2017;

2. The total shareholder's equity in the system will increase by a compounded aggregate growth rate (CAGR) of 10 percent per annum in the period 2012–2017;
3. The total market share of foreign banks (including their minority participations) will progressively increase every year from 23 percent in 2012 to 40 percent in 2017 (the foreign share in owned banks with majority participation will increase from 13.3 percent to 28 percent, and the foreign minority participation will increase from 9.7 percent to 12 percent). Based on the aforementioned assumptions, a total amount of US\$63 billion of inward FDI can be expected to be received in the banking sector within the period 2013–2017.

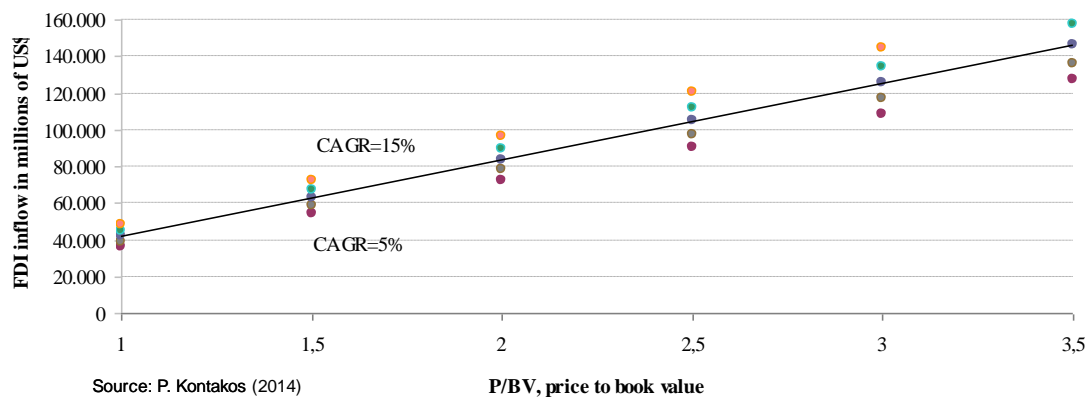
**Table 3. Scenario analysis of potential FDI inflows (in millions of US\$)**

	CAGR	5%	7,5%	10%	12,5%	15%
<b>P/B value</b>						
<b>1</b>		36.270	38.955	41.815	44.859	48.097
<b>1,5</b>		54.405	58.432	<b>62.722</b>	67.288	72.145
<b>2</b>		72.540	77.910	83.630	89.718	96.194
<b>2,5</b>		90.675	97.387	104.537	112.147	120.242
<b>3</b>		108.810	116.865	125.444	134.577	144.291
<b>3,5</b>		126.945	136.342	146.352	157.006	168.339

Source: P. Kontakos (2014)

Furthermore, a scenario analysis can be performed, by using combinations of the input parameters, the price-to-book ratio, CAGR, and target total market share to be reached over the period or per annum. Such scenarios are presented in Table 3 and are depicted in Figure 2, with the total foreign market share increasing progressively as estimated previously up to 40 percent in 2017, but using different CAGR and price-to-book valuations over the period. A central, most probable range of these scenarios is marked in Table 3 (see box), and accordingly the potential FDI inflows are estimated between US\$39 billion (CAGR = 7.5 percent and P/B ratio = 1) and US\$90 billion (CAGR = 12.5 percent and P/B ratio = 2). As already implied in the TIP model, the core input parameter and main driver in the analysis to estimate the potential FDI inflows consists of the final foreign share that is assumed to be reached. Different final foreign shares generate different FDI inflows. It should be noticed, however, that our assumption of 40 percent market share to be controlled by foreign banks by 2017 is reasonable, particularly if the respective foreign shares in the regional sectors are considered.

**Graph 2. Potential FDI inflows in the Turkish banking sector, 2013 through 2017,  
in millions of US dollars**



Moreover, to support the results in the analysis, the following bottom-up attributes of the banking sector can validate the assumption of a potential 40 percent total foreign market share by 2017:

1. The Turkish government has shown a strong commitment to privatization. It has repeatedly announced plans in the media for the sale of the three state banks, which hold 29 percent of the total assets in 2012, and have been traditionally one of the main providers of loans to small and medium-sized companies. In particular, it has announced that it intends to sell stakes in secondary public offerings of the state's Halk bank, Turkey's third-largest public bank, with a market share of 8.3 percent in 2012. In addition, the government has indicated that Ziraat Bank, Turkey's market leader, with a market share of 12.5 percent, will also be sold.
2. The minority holdings of foreign banks in Turkey were 9.7 percent in 2012, and consisted of the following participation in the respective local banks: BBVA, 25.01 percent; Citibank, 10 percent; Unicredit, 40.80 percent; BNB Paribas, 34.43 percent; BTA Securities (Turan Alem), 33.98 percent; and National Bank of Kuwait, 40 percent.

Accordingly, all these foreign institutions are highly likely to increase their local participation (and become majority shareholders) in the coming years. This scenario has been considered in the analysis presented in Table 2, where the minority participation of foreign banks is projected to reach 12 percent of the total shareholders' equity by 2017.

3. The proximity of Turkey to the Arab states of the Gulf puts the country in a position to attract significant foreign investments in Islamic banking, and Istanbul is established as a regional finance center in the short run and as a global finance center in the long run. A steady development of the participation banks to attain a 10 percent share in total assets, from 5.1 percent in 2012, is projected by the Participation Banks of Turkey, and this is expected to receive significant support from the public authorities. This is also supported by the evidence that the compound annual growth rate (CAGR) of

raised funds in the participation banking sector was 35 percent during the past 2001-2010 (Ozsoy and Yabanli, 2010). Moreover, based on past experience, transactions in Islamic banking are accompanied by significant acquisition premiums.

4. Considering that Turkey has no restrictions on foreign ownership in the banking sector, and the challenge of breaking through a highly concentrated market, where the top ten banks control 87 percent of total assets in 2012, a number of international banks are expected to continue establishing greenfield operations.

Overall, the above analysis pinpoints to an immense unexploited potential of record future inflows of foreign investments in the sector, which is estimated at a range with an expected value of US\$63 billion in the next years. This size of investment can revitalize and generate a new evolving momentum for the Turkish economy and can spur renewed foreign interest for investments and acquisition activity in other sectors.

## CONCLUSIONS

The structural transformation that characterized the Turkish economy in the last years, especially since the 2001 crisis, has made it clearly resilient in the face of domestic and international shocks.

The banking sector experienced record inflows of foreign investment in the period 2005–2013, and the series of local bank acquisitions by foreign banking groups has contributed toward but has also been facilitated by the transformation of the Turkish financial framework. Sberbank, UniCredit, the National Bank of Greece, HSBC, BNP Paribas, Fortis, ING, General Electric Consumer Finance, Commercial Bank of Qatar and National Commercial Bank now all have significant commitments in Turkey.

The Turkish banking system is distinguished for its growth attractiveness and exceptional profitability, the low degree of financial intermediation, and the unpenetrated mortgage sector; it also is backed by positive population demographics, its large size in total assets, and the low market share of foreign-owned banks—all motives for foreign investment. All above highlight opportunities for future banking business growth and can attract international investors and stimulate substantial FDI inflows (Kontakos, 2012).

To quantify the potential for foreign investment, the TIP model was utilized; its main function is to convert non-foreign-owned shareholder equity values to potential FDI inflows, by using historical price-to-book valuations as a vehicle. Although this approach is widely used in international practice for the valuation of individual M&A transactions, it is applied at a top-down level for the sector, and as such provides a unique, practical way to estimate the expected inflows and bridge economic practice with theory. Based on some assumptions, which can be easily validated in practice, it is

estimated that a mean potential of US\$63 billion inward FDI can be realized in the Turkish banking sector in period 2011–2015.

The analysis suggests that this amount of foreign investment can stimulate additional investments in other sectors, and not only transform the Turkish economy, but position the Turkish banking sector on par with those of the largest European economies, such as Spain and Italy, and at the same time establish Istanbul as a global financial center and crossroad for accessing other countries where links with Europe are weaker (the Middle East, Caucasus, and Central Asia).

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# INFLUENCE OF TAX UNCERTAINTY AND GOVERNMENT EXPENDITURES VOLATILITY ON ECONOMIC GROWTH - CASE STUDY OF OECD COUNTRIES

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## ABSTRACT

The influence of taxation and government expenditures on the economic growth is the object of many empiric works, but the volatility of these variables is almost omitted. Therefore the aim of the paper is to describe the effect of taxation and government expenditure on long-term economic growth with a special emphasis on the impact of tax uncertainty and volatility of government expenditure in OECD countries with using the dynamic panel. The level of taxation is expressed not only by the traditional tax quota, but also by the World Tax Index – index designed by the authors. The results show that there exists the negative impact of volatility of government expenditures on economic growth – as the theoretical assumptions. In case of tax uncertainty there are contradictory results. Tax uncertainty expressed by tax quota is positively connected to the economic growth – contradicting the theoretical assumptions; but the use of the World Tax Index showed the negative impact of tax uncertainty on economic growth. Therefore the World Tax Index seems to be more the appropriate approximator of the level of taxation.

**Keywords:** *Economic Growth, Tax Uncertainty, World Tax Index, Tax Quota, Dynamic Panel, OECD Countries.*

## INTRODUCTION

Almost all developed OECD countries are experiencing fiscal changes today which significantly affect the real tax burden. It is necessary to realize that the government expenditure or the tax burden uncertainty can represent a much more problematic factor than the level of these indicators. It is also obvious that if there exists the significant tax uncertainty, it is likely to damage long-term economic growth and economic welfare more than just a high tax burden. A high tax burden can lead to higher tax revenues in case of invalidity of the implications of the Laffer curve. If these higher tax revenues are used to finance productive government expenditures, the effect on economic growth may appear positive. This fact partially eliminates the potential negative growth effect of high taxation, which does

not apply in case of tax uncertainty. Analogically, the volatility of government expenditure can very similarly affect the level of output of the economy.

The aim of the paper is to describe the effect of taxation and government expenditure on long-term economic growth with a special emphasis on the impact of tax uncertainty and volatility of government expenditure in OECD countries with using the dynamic panel. The impact of taxation, resp. taxation uncertainty will be explored in all aspects of taxation by overall taxation.

## **INFLUENCE OF LEVEL AND VOLATILITY OF TAXATION AND EXPENDITURE ON ECONOMIC GROWTH**

In an effort to achieve, insofar as possible, the best and most realistic determination of economic growth, economists try to include in their growth models a number of variables, among others those related to fiscal policy. Interest in these types of variables has deepened as a result of the current debt crisis and doubts about further EU integration. The aim of these models is therefore to test hypotheses about the impact of fiscal variables on economic growth (Kotlán and Machová, 2013). Fiscal variables mean the level of taxation and government expenditure, and also the size of the public sector. The most important authors dealing with this issue include e.g. Gemmel, Kneller and Sanz (2011). These conclude that the impact of fiscal variables on economic growth is ambiguous and depends on the nature of taxes (distortionary or non-distortionary) and government expenditure (productive or non-productive), with pro-growth effects being present only in productive expenditure, if financed from non-distortionary taxes. Distortionary taxes and unproductive government expenditure have a negative impact on economic growth. Devereux and Mansoorijan (1992) also point to the need to coordinate tax and expenditure policies, if fiscal policy is to positively affect growth. However, none of these studies addresses the extent to which economic growth can be influenced by tax uncertainty and the volatility of government expenditure. Fiscal volatility represents a kind of economic risk, which is associated primarily with expectations about future developments in tax bases and tax rates, or developments in government expenditure. Taking into account this type of risk can then modify the conclusions of empirical studies dealing with the effect of taxation and government expenditure on economic growth.

### *Effect of level and volatility of taxation on economic growth*

The size and volatility of taxation affects economic growth through its effects on individual growth variables, in particular on the level of savings and capital accumulation, or the size of the human capital and technology (Macek, Machová and Kotlán, 2013a). In the case of taxation and its effect on growth, economists come to contradictory conclusions. Keuschnigg (2009) argues that investment

activities, and thus the growth, are negatively affected in particular by corporate tax, which is very often associated with decisions to place foreign direct investment. Labour taxation also leads to reduced investment activities due to the pressure on corporate profits caused by a drop in labour supply (Alesina *et al.*, 1999).

The positive effect of taxation on human capital accumulation is also admitted by Lin (2001) in the case of public investment in education; however, in the case of private investment, most studies agree on the negative impact of taxation, in particular through personal income tax with a progressive tax rate (Erosa and Koreshkova, 2007), which reduces the returns from these investments.

Indirect taxes affect economic growth only through their effect on the substitution between leisure time and work, thus leading to a change in the ratio between labour and capital in production, while direct taxes also affect growth through other channels, e.g. those mentioned above. The negative influence of direct taxes on economic growth should thus be greater and their distortionary effects stronger compared to indirect taxes (Mamatzakis, 2005).

The issue of the distortionary nature of direct and indirect taxes is one of the most debated issues in terms of the influence of taxes on economic growth. As mentioned above, this problem is addressed primarily by Kneller, Bleaney and Gemmell (1999), who report that distortionary taxes negatively affect growth, while the effect of non-distortionary taxes is neutral or positive. Tax volatility or uncertainty, similarly as in the case of indirect taxes, affects growth variables primarily through the substitution effect, whether it is substitution between consumption and savings, or substitution between investments in the different types of capital. Its effect is thus particularly relevant in the case of distortionary taxes.

Decisions on the size of household savings are mostly influenced by taxation of labour, which reduces the amount of disposable income, also potentially leading, in the absence of tax uncertainty, to a reduction in the volume of savings and negative effect on growth. The influence of uncertainty on the level of taxation then depends on the elasticity of intertemporal substitution and risk aversion. For agents with high risk aversion, if elasticity is high, higher risk arising from uncertainty regarding labour tax rates will lead to higher substitution and an increase in the savings rate, which will have a positive effect on economic growth (Smith, 1996). The resulting effect of labour taxation on economic growth then depends on which of these effects prevails.

As for the accumulation of capital, the tax reduces the net rate of return from capital after tax, thus having a negative impact on economic growth. If there is uncertainty about future tax rates, economic agents with high risk aversion prefer the type of capital accumulation which is not taxed, which is not subject to uncertainty, or where such uncertainty is at least reduced. For example, if there is greater uncertainty about the tax rate on physical capital, this will lead to a greater accumulation of human

capital and vice versa. The substitution effect will thus influence the relationship between physical and human capital in production, which will also affect economic growth (Easterly *et al.*, 1991). The resulting effect will depend on the type of capital with more uncertainty about the level of its taxation.

Economic theory implies that the impact of tax uncertainty on economic growth is the result of a number of different effects, and that it depends on which of them prevails. The results of empirical work in this area are unclear; however, it should be noted that they are generally limited to the impact of uncertainty on investment decisions.

#### *Effect of level and volatility of government expenditure on economic growth*

There is neither any consensus among economists on the relationship between government expenditure and economic growth. While Wagner (1911) and his law of increasing state activity (Wagner's Law) says that economic growth leads to the growth of the public sector, including government expenditure, standard Keynesian theory understands government expenditure to be an exogenous factor that can be successfully used as a fiscal policy tool to promote economic growth. Lucas (1988) and Romer (1986) argue that only investments in human capital and research and development have pro-growth effects; Barro (1990) also considers investments in infrastructure as having pro-growth effects. As already mentioned, it is necessary to distinguish between productive and unproductive expenditures. Schaltegger and Torgler (2006) add that the effect of government expenditure on growth is negative in developed, wealthy economies with a large public sector and a greater proportion of non-productive expenditure due to crowding out.

When considering the impact of changes in government expenditure on economic growth, it is also necessary to take into account its temporal nature. As indicated by Friedman (1957) discretionary measures in the form of changes in government expenditure can positively influence growth, but only provided that these changes are not considered permanent by economic agents. Should households and firms consider the changes permanent, it would change their consumer and investment behaviour, which could have a negative effect on economic growth.

The volatility of government expenditure may theoretically have both a positive and negative effect on economic growth. The key aspect in this case is what impact the volatility of government expenditure has on output volatility, since the influence of the economic cycle on economic growth is generally seen in economic theory as negative (Badinger, 2012). By increasing or decreasing government expenditure in the Keynesian approach, it is possible to smooth out the economic cycle and positively affect mainly investment as well as consumption and economic growth; however, if fiscal policy is not in line with the cycle, if it is applied in a pro-cyclical manner, it alone may instead become the cause of output volatility (Afonso and Jalles, 2012). It follows that the pressure to reduce

government expenditure, and therefore its volatility, may affect growth positively, even during recessions, as it is accompanied by a reduction of discretionary measures, which may cause the cycle (Poterba, 1994). As indicated by Afonso and Furceri (2010), high volatility in government expenditure may also lead to the growth of interest rate volatility, which, in contradiction to the above described Keynesian approach, will negatively affect investment and economic growth.

Empirical studies confirming the positive effect of reducing discretionary measures and their volatility include e.g. Badinger (2012). The latter author, as well as previously Barro (1990), adds that the effect of the volatility of government expenditure on growth varies according to the level of development of each economy, being more important in less developed countries.

## INTEGRATION OF FISCAL VARIABLES INTO EXTENDED MODEL OF GROWTH

The studies of Lucas (1988) or Romer (1986) gave rise to a body of largely empirical work, the aim of which was the best possible explanation of economic growth through the integration of other factors that affect it, including the taxation that is, nevertheless, not desirable to be considered in isolation. Its analysis should primarily include government expenditure financed by the taxes.

The standard approach by Barro (1990), Rebelo (1991), or Barro and Sala-i-Martin (2004) states that, in a steady state, the economy grows at the same rate as private consumption, and as physical and human capital. If agents maximize their utility function, the growth of the economy ( $\gamma$ ) is thus given by the difference between the net marginal return to physical capital ( $r$ ) and the rate of time preference ( $\rho$ ) adjusted for the intertemporal elasticity of substitution in consumption ( $1/\theta$ ):

$$\gamma = \frac{1}{\theta}(r - \rho). \quad (1)$$

To state hypotheses for the empirical part of the paper, it is necessary to extend the model with fiscal policy variables. Barro (1990) modifies the equation 1 as follows, assuming the broad concept of capital ( $K$ ) that includes both physical and human capital (consistently with Rebelo, 1991 and his AK model) and a flat tax rate on income ( $\tau$ ) is that is used to fund government expenditure ( $G$ ):

$$\gamma = \frac{1}{\theta} \left[ (1 - \tau) \phi \left( \frac{G}{K} \right) (1 - \eta) - \rho \right], \quad (2)$$

where  $\phi$  expresses a positive decreasing marginal product, and  $\eta$  is the sensitivity of production to changes in  $G$  for a given  $K$ . The growth rate of the economy is thus positively affected by productive government expenditure, which is also examined in the empirical part of the paper. The sensitivity of production to changes in government expenditure has, on the other hand, a negative influence on

growth. The equation (2) also shows that the influence of taxation on the economic growth is negative. Nevertheless, there still remains the crucial question, whether the effect is actually negative in case of all types of taxes.

To answer the question, e.g. Milesi-Ferreti and Roubini (1998) modify the equation 1 to include different types of taxes classified by the function. However they still state that similar models are very detached from the real tax mixes in individual economies. Therefore, the authors of such models need to calibrate them in empirical works so as to be as close to the real world as possible.

One of such models that are very close to the reality is presented by Denaux (2007). His model shows how economic growth is affected by taxes on physical and human capital, taxes on property, taxes on consumption, and also by productive and unproductive government spending. However, in reality, e.g. capital gains make part of income of corporations as well as individuals. From that reason, it is not possible to find any good proxy of the physical capital tax in the model. Denaux (2007) uses the corporate income tax rate, which it is not accurate in fact. Similar situation occurs in case of human capital above all.

The main problem of the above models lies in fact that they use the functional classification of taxes and the social planner approach. The model below is based on the classification by object of taxation and the behavior of agents.

Households maximize their utility function as described e.g. by Barro and Sala-i-Martin (2004) for a given budget constraint that is:

$$\dot{a} = (1 - \tau_w)wl + (1 - \tau_a)ra - (1 + \tau_c)c + tr, \quad (3)$$

where  $a$ ,  $w$ ,  $l$ ,  $c$ , and  $tr$  are per capita amounts of assets, wages, labor, consumption and transfers respectively,  $r$  is net marginal rate of return on physical capital, and  $\tau_w$ ,  $\tau_a$  and  $\tau_c$  are tax rates on wages, property and consumption respectively. The budget constraint makes a limiting condition for the households' behavior optimization. On the basis of the optimization, households decide on the consumption/leisure ratio, depending on the net after-tax marginal return ( $r$ ) that is also a crucial determinant of the behavior of firms.

In the sector of firms, the variables are related to the effective labor  $\hat{L} = Le^{xt}$ , where  $x$  is the technology growth rate. Then  $\hat{k} = \frac{K}{\hat{L}}$  and  $\hat{c} = \frac{C}{\hat{L}}$  applies. If the production function is  $Y = f(K, \hat{L})$ ,

after-tax profit ( $\pi$ ) is given as:

$$\hat{\pi} = \hat{L} \left\{ (1 - \tau_\pi) \left[ f(\hat{k}) - we^{-xt} - \delta \hat{k} \right] - r\hat{k} \right\}, \quad (4)$$

where  $\delta$  is the depreciation rate and  $\tau_\pi$  is the tax rate on profit. Setting the first derivatives of the function (eq. 4) equal to zero, we get:

$$f'(\hat{k}) = \frac{r}{(1-\tau_f)} + \delta \text{ and (5)}$$

$$w = \left[ f(\hat{k}) - f'(\hat{k})\hat{k} \right] e^{xt}. \text{ (6)}$$

Market clearing condition for the assets market states that  $a = k$ , resp.  $\hat{a} = \hat{k}, \dot{a} = \dot{k}$ , and the economy grows at the same rate as the physical capital, as stated above. Thus, from the equations (3), (5) and (6), we get the growth rate of the economy:

$$\gamma = \frac{\dot{k}}{\hat{k}} = (1-\tau_w) \left[ \frac{f(\hat{k})}{\hat{k}} - f'(\hat{k}) \right] + (1-\tau_a) \left[ f'(\hat{k})(1-\tau_\pi) - \delta \right] - (1+\tau_c) \frac{\hat{c}}{\hat{k}} + \frac{\hat{t}r}{\hat{k}} - x - \frac{\dot{l}}{l}. \text{ (7)}$$

Tax uncertainty can be understood as a part of the tax burden, which means an additional level of taxation for those agents with risk aversion. Tax uncertainty basically represents an additional tax rate which is different for different subjects, depending on the relationship of the subject to risk. The higher the risk aversion, the greater the increase in a certain subjective tax rate that also includes the tax uncertainty. In this case, the following applies in case of all types of taxes:

$$\tau_i = f(\tau^S_i, \tau^V_i), \text{ (8)}$$

where  $\tau^S_i$  is tax rate size for the  $i$  type of tax, and  $\tau^V_i$  is tax rate volatility for the  $i$  type of tax.

The model described therefore shows that, according to economic theory, the resulting effect of the size and volatility of the taxation on growth through all types of taxes, i.e. taxes on profits, taxes on wages, property taxes and consumption taxes, should be negative (Macek, Machová and Kotlán, 2013b), which makes the primary hypothesis for the empirical part of the paper.

## EMPIRICAL ANALYSIS: METHODOLOGY, DATA AND RESULTS

The empirical analysis in this article is based on a dynamic panel model, which uses data for OECD countries for 2000-2010. Real GDP per capita in purchasing power parity (GDPCAP) is therefore the dependent variable. The independent variables are capital accumulation, expressed as a share of investment in real GDP in purchasing power parity (INVGDGP) and the accumulation of human capital as a proportion of the population in the total population aged 25-64 having completed at least upper secondary education, as classified by ISCED (HUM SC). Other explanatory variables are then fiscal variables, including the level of government expenditure, the volatility of government expenditure, taxation and the size of the tax uncertainty.

The level of government expenditure is expressed as a share of government expenditure in nominal GDP. The volatility of government expenditure is expressed by the deviation of the government's expenditure (share of GDP) in each year from an average level of government expenditure during the

reporting period for each country. However, none of the variables concerns total government expenditure, but only productive expenditure, in accordance with the work of Kneller, Bleaney and Gemmell (1999) and according to COFOG classification. They thus primarily include expenditure on general and public services, economic affairs, defence and education. By contrast, primarily expenditures on social affairs are excluded.

Tax uncertainty, similarly to the volatility of government expenditure, is expressed using deviations of the tax burden in each year from an average level of tax burden for the reporting period for each country. The selection of an indicator to express the tax burden is crucial both to calculate the uncertainty, and to express the level of taxation. As a standard, and also in this article, the tax burden is approximated using a tax quota, i.e. the share of tax revenues in nominal GDP; however, this brings about a whole range of negatives (Kotlán and Machová, 2012). As an alternative to the tax quota, the following analysis therefore also uses another indicator of the tax burden, the World Tax Index (WTI), designed for the purposes of macroeconomic comparisons and other analyses by the authors. It is a measure that combines hard data from internationally recognized sources (OECD, World Bank) with soft data obtained from an extensive survey carried out annually among tax experts from all OECD countries. The index consists of several parts: (1) Corporate Income Tax (CIT), (2) Personal Income Tax (PIT), (3) Value Added Tax (VAT), (4) Individual Property Taxes (PRO), and (5) Other Taxes on Consumption (OTC). The WTI is not only limited to tax rates, which are reflected, under certain circumstances, in the level of tax revenue and thus the tax rate; it includes other aspects associated with the tax burden, such as taxation progressivity, the administrative costs of taxation, or tax deductibility of expenses. For more details on the methodology for its construction, see Machová and Kotlán (2013). The dataset is freely available at [www.worldtaxindex.com](http://www.worldtaxindex.com). Other data mentioned was drawn mainly from the OECD iLibrary Statistics, OECD Factbook Statistics and Penn World Table.

The method used was panel data regression. Given the relatively small number of countries and the relatively short time series, the combination of time and cross-country data is absolutely essential. This makes the presented statistics more reliable. The software used was E-Views, version (7).

The regressions performed aimed to verify the hypothesis of the existence of the impact of taxation and government expenditure, and particularly tax uncertainty and volatility of government expenditure on long-term economic level and hence economic growth. In the first phase, stationarity tests were performed using a panel unit root tests. The variables used were verified as stationary, but with regard to further interpretation of the results, they were expressed in logarithmic form. The lagged variables are designated (-1).

Using a robust estimator in calculating the covariance matrices ensured that the estimation results of standard deviations of parameters and hypothesis tests were correct with regard to a possible



occurrence of autocorrelation and heteroscedasticity. This method is called "White Period" and it is made possible by virtue of the econometric software used.

Given that this is a dynamic panel, which includes appropriate delays of the dependent and independent variables, it cannot be reliably estimated by OLS. As the estimation technique, a generalized method of moments (GMM) was used, which included the method of instrumental variables. This method uses the Arellano-Bond estimator (Arellano and Bond, 1991). The aforementioned estimation type ensures that the appropriate transformation process and using appropriate instruments eliminates the risk of endogeneity of the lagged values of the dependent variable and the independent variables with a random component. In the analyses below, the lagged values of the dependent variable were used as the instruments, with a lag of (-2). According to the Sargan test, the lagged values of the independent variables were not necessary to use.

The below model includes a lag of one period, as is usual in these types of studies. Alternatively, autoregression analyses with a two- and three-year delay were still carried out, with very similar results; however, with regard to the shortness of the time series, it would be impossible to reliably verify their validity from an econometric point of view.

The dynamic panel model of OECD countries for the period 2000-2010 is presented in the following tables 1 and 2. It uses lagged values of the dependent variable and other endogenous variables describing the impact of fiscal policy. This is the level of government spending and the level of taxation as well as the rate of their volatility. Given the focus of the paper, the question of particular importance is the volatility of fiscal variables. Table 1 presents a model which uses ordinary tax rate as the tax burden approximation; table 2 shows the author's own tax burden index – the World Tax Index (WTI), see above.

DEPENDENT VARIABLE	GDP per capita (PPP) (LOG(GDPCAP))
LOG(GDPCAP(-1))	0,595 (21,1263)**
LOG(INVGDP)	0,284 (20,496)**
LOG(HUMSC)	0,304 (4,367)**
LOG(EXPPROD(-1))	0,129 (3,414)**
LOG(V_EXPPROD(-1))	-0,001 (-1,930)*
LOG(V_TQ(-1))	0,001 (2,636)**
LOG(TQ(-1))	-0,135 (-5,351)**
Number of observations	306
Number of instruments	34
J-statistics	32,97

Table 1. *Effect of tax uncertainty and volatility of government expenditure using tax quota indicator*

*Note: Included in parentheses are t-statistics that are adjusted for heteroskedasticity and autocorrelation; standard deviations are calculated using robust estimates; \*, \*\*, \*\*\* indicate significance levels of 10 %, 5 %, and 1 %, respectively; Arellano-Bond estimation.*

The results presented in both tables show that substantial inertia can be seen for the GDP (GDP (-1)) indicator and a positive effect of the size of GDP in the previous period, as well as a very significant positive impact of the share of human capital (HUMSC) and investment rate (INVGDGP), where the effect of percentage change in human capital is quantitatively greater than with the percentage change of physical capital.

Both models also show that there is a substantial positive impact of productive expenditure (EXPPROD(-1)) and a negative impact of taxation (TQ(-1)/WTI(-1)) on economic growth.

Also demonstrated was the negative impact of tax uncertainty measured by indicators of effective tax rates WTI (V\_WTI(-1)), but a positive impact of tax uncertainty measured by the tax quota (V\_TQ(-1)). Although theoretical assumptions about the negative impact of tax uncertainty was thus not confirmed if we use the tax burden, its negative impacts are quite apparent when using this alternative indicator.

The negative impact of government spending volatility (V\_EXPPROD) in both models was also confirmed.

Due to the use of logarithms, the effect of these independent variables can be interpreted as the effect of their percentage change on the percentage change in output per worker. When using the tax quota, an adverse effect of the tax burden is shown, where a 10% tax quota increase reduces the GDP per capita in the following period by about 1.35 %. If we use the alternative indicator of the tax burden (WTI), which better describes the effective tax burden, we find that increasing the tax burden (measured by WTI) is reflected in a decline of GDP per capita by 1.44 %, which is a slightly larger counter-growth effect. From the above, one can conclude that using the alternative indicator of the tax burden leads to more negative counter-growth effects of taxation. Another issue is the tax volatility. Tax volatility is estimated as adversely affecting economic growth, but only when using the alternative index (WTI). Taxation and tax uncertainty thus seem to have a significantly more negative impact on economic growth than when taxation is approximated using the tax quota, i.e. using the relative tax revenues.

DEPENDENT VARIABLE	GDP per capita (PPP) (LOG(GDPCAP))
LOG(GDPCAP(-1))	0,574 (19,589)**
LOG(INVGDP)	0,265 (21,901)**
LOG(HUMSC)	0,348 (6,529)**
LOG(EXPPROD(-1))	0,102 (3,316)**
LOG(V_EXPPROD(-1))	-0,001 (-2,162)*
LOG(V_WTI(-1))	-0,002 (-6,74)**
LOG(WTI(-1))	-0,144 (-5,037)**
Number of observations	306
Number of instruments	34
J-statistics	30,854

Table 2. *Effect of tax uncertainty and volatility of government expenditure using WTI indicator*

Note: Included in parentheses are *t*-statistics that are adjusted for heteroskedasticity and autocorrelation; standard deviations are calculated using robust estimates; \*, \*\*, \*\*\* indicate significance levels of 10 %, 5 %, and 1 %, respectively; Arellano-Bond estimation.

## CONCLUSION

The current economic literature pays considerable attention to the impact of fiscal variables on economic growth. It focuses on the issue of taxation according to different types of taxes, on government expenditure and the size of the government sector, generally considering the effects of taxation to be negative, while seeing the effect of government spending, in the case of productive expenditure, as rather positive. However, studies of this type often neglect the fact that economic growth may be subject to effects other than the actual level of taxation and government expenditure. This is because fiscal variables can affect growth only due to their volatility, although their level has long been relatively low. Long run economic growth is inevitable for reaching economic welfare as the main aim of the economic policy makers. Economic welfare represents the improvement in all domains of society and therefore it can represent sustainable economic growth. Since the long run economic growth is a partial element of sustainable economic growth, it is necessary to realize that the way of fiscal variables impact on long run economic growth can be considered same as in the case of fiscal variables impact on sustainable economic growth.

As a result of higher stated, the aim of this paper was to describe the effect of taxation and government expenditure on long-term economic growth with a special emphasis on the impact of tax

uncertainty and volatility of government expenditure in OECD countries with using the dynamic panel.

The paper aims not only to assess the actual impact of the volatility of fiscal variables on economic growth, but in particular the use of the alternative indicator of the tax burden to calculate tax variables – the World Tax Index, which was designed by the authors. It is necessary to realize that limitations of this study can be assigned to the characteristics of tax quota as the approximator of tax burden. This approximator has a lot of shortcomings and therefore also World Tax Index was used. World Tax Index is based on the combination of soft and hard data and therefore it represents the real tax burden. It removes the shortages of tax quota and its value is more reliable than the value of tax quota in the case of tax burden measurement, but on the other hand it was available only for short time series.

The results of the empirical analysis confirm the economic theory of the negative impact of taxation and the positive effect of productive government spending on economic growth. The negative effect of taxation was demonstrated both when using the tax quota, and when using the WTI.

In compound models, i.e. models using both of these tax burden indicators, assumptions about the negative impact of volatility of government expenditure were also confirmed. However, the models show contradictory results in the case of the impact of tax uncertainty. When using the tax quota, it showed a positive influence on growth, which contradicts the theoretical assumptions, while the use of the WTI led to results consistent with theory and showed that the impact of tax uncertainty on economic growth is negative. From this perspective, the WTI seems to be more suitable to an approximate tax burden, and as such it is applicable not only in order to compare the tax burden for individual countries but also as an indicator of the tax burden in macroeconomic models, particularly in models of long-term economic growth e.g. Kotlánová and Kotlán (2012).

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## SUSTAINABILITY AND INNOVATION TO INCREASE CORPORATE COMPETITIVENESS: OPTIMISATION MODEL

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### ABSTRACT

Modern organisations of all forms and origin face the necessity to force innovations and be sustainable in order to promote its business excellence. The level of a firm competitiveness is measured by a number of methods, which are covered in full in the academic literature. Sustainability is a key issue for organizations in the twenty-first century as they increasingly acknowledge that their policies and practices have social and/or environmental consequences. Accordingly, many companies are implementing elements of sustainability into their business practices. The set of those new managerial technologies comprise innovative approach to the optimization of the numerous competitive sources. In light of this, it is imperative that new methodologies and frameworks to facilitate the understanding of sustainability concepts in the business environment are to be developed. The framework suggested in the paper helps to outline a set of propositions regarding the nature and process of innovative and sustainable development considering many factors influencing a firm.

**Keywords:** *innovation, organizational competitiveness, sustainability management, organizational sustainability*

### UNDERSTANDING ORGANISATIONAL COMPETITIVENESS AND SUSTAINABILITY

The competitiveness of the enterprise is a complex, integrated indicator, which is formed under the influence of many factors that affect a business entity. The most cited definition was suggested by Porter, who identified four determinants of a country that can affect the global competitiveness of companies located there: factor endowments; demand conditions; related and supporting industries; and the strategy, structure and rivalry of the companies in a country. He also identified two external variables – government policy and chance - that impact on the determinants and thus on competitiveness more generally (Porter, 1990). Competitiveness of enterprises is a concept referring to the ability of firms to sustain and gain in market share through their cost and pricing policy, innovative use of production factors and novelties in product characteristics. It is often measured by the share of the products of one manufacturer (in value terms) on the domestic and international market of those

products. The analysis of impacts on cost and capacity to innovate, however, is mainly about the drivers of competi-tiveness.

We argue, competitiveness and sustainability are mutually reinforcing concepts that bring innovation management techniques to a company. The concept of sustainable enterprise is related to the general approach to sustainable development, originally enunciated in the Brundtland Report, as “forms of progress that meet the needs of the present without compromising the ability of future generations to meet their needs”( C. Holliday and J. Pepper, 2001), an approach which postulates a holistic, balanced and integrated perspective on development and which has subsequently been elaborated and endorsed through declarations emanating from a number of high-level global development forums, including the United Nations Conference on Environment and Development held at Rio de Janeiro in 1992 and the World Summit for Social Development held at Copenhagen in 1995.

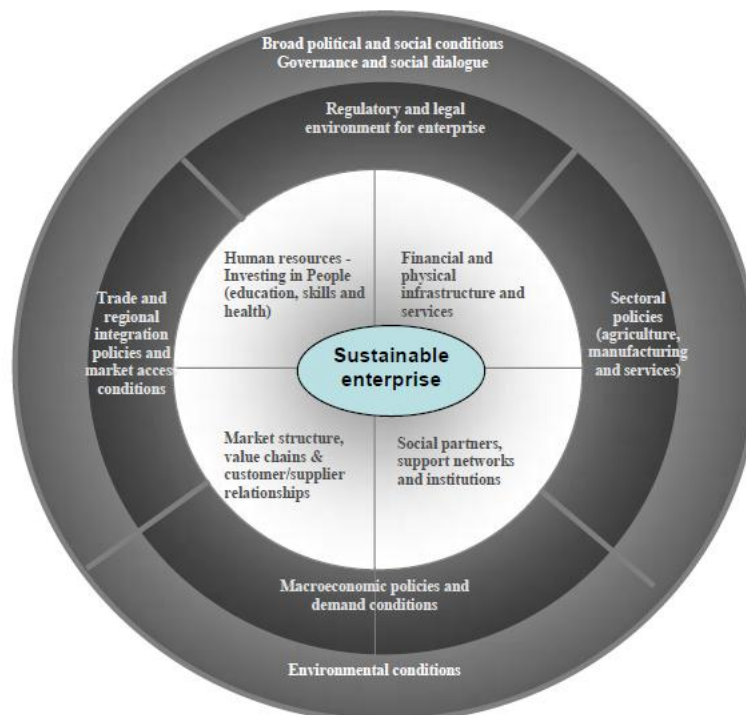


Figure 1. *An integrated Approach to Sustainable Enterprise (ILO, 2007)*

Thus, in contrast to narrowly defined, traditional perspectives which depict enterprises in terms of linear input–output relationships centered solely on maximizing short-term economic value, an integrated approach to sustainable enterprise development takes a more holistic, integrated and long-term view (figure 1), which makes a stylized distinction of what in practice are overlapping and interdependent operational and policy spheres (micro-, macro- and meta-levels). At the centre are the sustainable enterprises which comprise a number of different stakeholders, including shareholders,



employers, employees and customers, as well as relationships with suppliers, governments and the broader community.

At the same time, operational efficiency incorporates a comprehensive assessment of enterprise's activities which subsequently raise the efficiency of its production factors, and hence interrelations with stakeholders. In order to attain operational efficiency a company needs to minimize redundancy and waste while leveraging the resources that contribute most to its success and utilizing the best of its workforce, technology and business processes. The reduced internal costs that result from operational efficiency enable a company to achieve higher profit margins or be more successful in highly competitive markets. While we are talking about cost reduction, the latter could not be cut, but optimized in order to balance the interests of stakeholders. This is still an issue in Russia, and for instance BRICs countries- sustainability is still not very much related with the primarily competitive driver (Belyaeva, 2013).

The legal responsibility is also important to be considered competitive and entails expectations of legal compliance and playing by the "rules of the game." From this perspective, society expects business to fulfill its economic mission within the framework of legal requirements. But while regulations may successfully coerce firms to respond to an issue, it is difficult to ensure that they are applied equitably (Pratima, 2002). And finally, mutual sources of research support the idea that companies with good records of CSP have a competitive advantage in attracting employees (Backhaus, Stone, and Heiner, 2002).

Thus, the mentioned sources of the enterprise's development directly influence all competitive and sustainable factors. A regulated change of those factors could become a systemic management of the enterprise's competitiveness (Krivorotov, 2007; Belyaeva, 2013).

## **SYSTEM APPROACH TO ENTERPRISE'S COMPETITIVENESS MANAGEMENT AND ITS CHALLENGES**

Competition within the market is vital for business and society to understand and test how to best meet people's needs with more sustainable solutions. Markets liberate ingenuity by encouraging experimentation and rewarding those ideas that meet people's needs and aspirations most efficiently (Holliday S and Pepper J, 2011). Approaches to enterprise development have traditionally focused on project-level technical assistance and finance. Today if a business does not explore eco-oriented opportunities within its products, processes or services, it does not learn much from its environment focused business activities. When it foregoes its opportunities to learn from environmental challenges, opportunities to build ecocentric organizational culture may also slip away (Banerjee, 2002). Obviously, effective social dialogue is a means for fostering better workplace relations and helping to

nurture sustainable enterprise development. Considering mentioned above challenges for of the enterprise's competitiveness management system, we suggest the logic of interaction of factors and sources of the enter-prise's competitiveness (Figure 2).

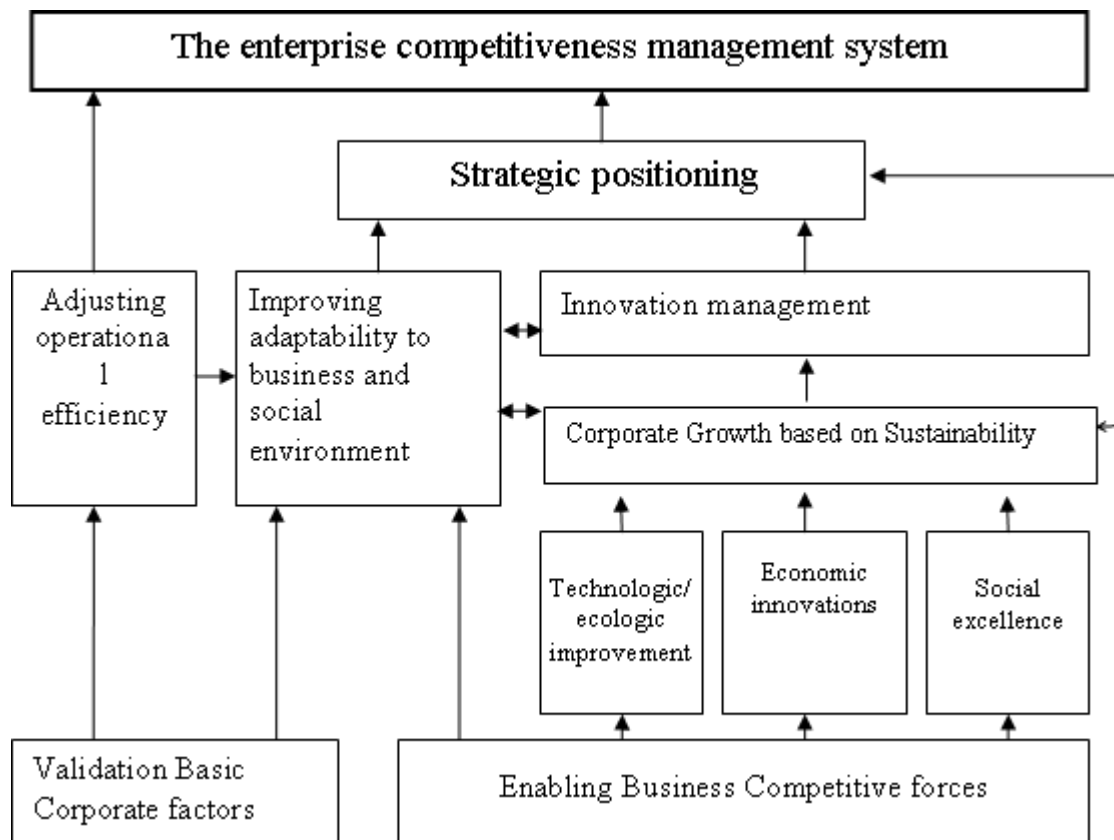


Figure 2. *Management of competitiveness of the enterprise*

The strategic positioning is based a lot with two key ingredients. One of them represents en-terprise's relations with the external environment. It may be interpreted as its ability to adapt to the organization and business environment, its level of innovation management, which is crucial for any modern market-oriented enterprise. This component characterizes the enterprise's adaptability to the conditions of the external environment, the flexibility of its response to the environmental changes (Ansoff, 1989).

We focus on the adaptability of enterprise system, which determines enterprise's sustainable development. The adaptability is understood as a constant innovation activity that involves all business processes both internally and externally, and also affects key stakeholders. It is the second driver – Innovation, we argue, which provides and sustains the conditions for adaptability. Innovation and adaptability together form the necessary and sufficient conditions for the enterprise's strategic market positioning. (Santo, 1990).

The high level of adaptability of the enterprise depends on following targets in strategy problem tailored for the particular stakeholder, partner and its individual needs and opportunities to choose from the variety of competing companies in the market according to the scale of preferences. These preferences can be arranged according to specified criteria, reflecting mainly basic consumer characteristics, their price and quality, now have undergone significant changes towards integrated diversity and complexity.

It is absolutely clear, that the leading enterprises are those that can adapt its strategy to a more diverse market needs. The challenge of today requires the ability to initiate demand for upgraded services and goods to lead the market, and in the same time develop internal social responsibility in order to be sustainable and competitive creating innovation and social added value. Any organisational structure might be irrelevant (Nadella, 2013) because no competition or innovation is going to respect those boundaries. Everything now is going to have to be much more compressed in terms of both cycle times and response times.

The level of meeting the above-mentioned criteria sets preconditions of enterprise positioning in the market. High adaptability corresponds to the adequate market share, while mistakes and miscalculations, irrelevant actions to maintain the required adaptability will inevitably affect the loss of former market position.

The logical understanding of assessing the effectiveness of the enterprise's market positioning can be formalized applying its characteristics in the system of «Adaptability – Innovation» strategy. There would be 4 types of companies.

1. Companies with low adaptability and innovation due to the lack of a clear strategic development plan can be attributed to the problem category, and their disappearance from the market might be just a matter of time, unless the attitude towards innovation management is changed.
2. Companies with passive innovation and high level of market adaptability result from applied strategy of economy of scale, which is provided by a well-developed technology. However, leadership positions are defined by equipment maximum production lifecycle.
3. Companies with low market adaptability, while innovation rate is rather high. It is not rare, when innovation activity does not bring adequate returns because of the needless market ideology, therefore the updates of production processes don't result in their embodiment in the mass product. Eventually, the miscalculations in the strategic marketing "dilute" highly developed innovation, making it ineffective.
4. Strategic Leaders – The innovation management intersects globally with the structure of production, human resources management, marketing and promotion strategy, social and ecological responsibility.

Thus, the most important role for sustainable competitive organization is performed by innovations level of technological processes, product updates, improvement of production and labor organization methods, formation of an adequate management system, etc. Implementation of these measures is aimed at amplification of enterprises' innovative activity, as well as enhancement of an operating efficiency and market adaptability, i.e. those key sources of competitiveness of an enterprise, determining its level. (Table 1)

Innovations Run by Sustainability				
Economic Effect	R&D Effect	Resource-Based Effect	Social Effect	Ecological Effect
Profit-innovation and license activities Sales Volume Growth Production Quality Increase ROI and ROA increase	New Types of production New Equipment facilities New Technologies IT share Increased levels of automation products Improving organizational level of production and labor	Increased rates of return on assets Accelerated turnover of working capital Increase in labor productivity Reduced material and energy production Reduced complexity of production processes	Income Growth Labour Workplace safety Working Environment HR Qualification Growth Social Values Satisfaction HR turnover reduction	Reduction of air pollution Reducing waste production Producing environment-friendly goods Improved ergonomic working conditions Reducing environmental pollution fines

Table 1. Systems of tentative indicators of innovation run by sustainability

Taking the above into consideration, the initial selection of innovative activities is logical to be made on the basis of an evaluation matrix, reflecting the degree of impact of a certain innovative change on the enterprise's indicators of operational efficiency and market adaptability. However, activities aimed at improving the operating performance, are linked to the need to improve internal business processes, while activities, aimed at increasing the level of market adaptability, must take into account and positively change external conditions for the functioning of an economic entity (Fig. 3).

## OPTIMISATION MODEL OF COMPETITIVENESS' MANAGEMENT ENHANCEMENT

The criterion for selection of the most significant innovation activities for the enterprise is the priority of their influence on primary increment in one of two indicators (operational efficiency or market adaptability). Each of them is quantified, and requires some adjustment (Krivorotov et al. 2013).

Comparison of these figures gives clear organisational guidelines whether to start upgrading the enterprise's operating efficiency, or its market adaptability; and allows ranking the contents of planned innovation changes.

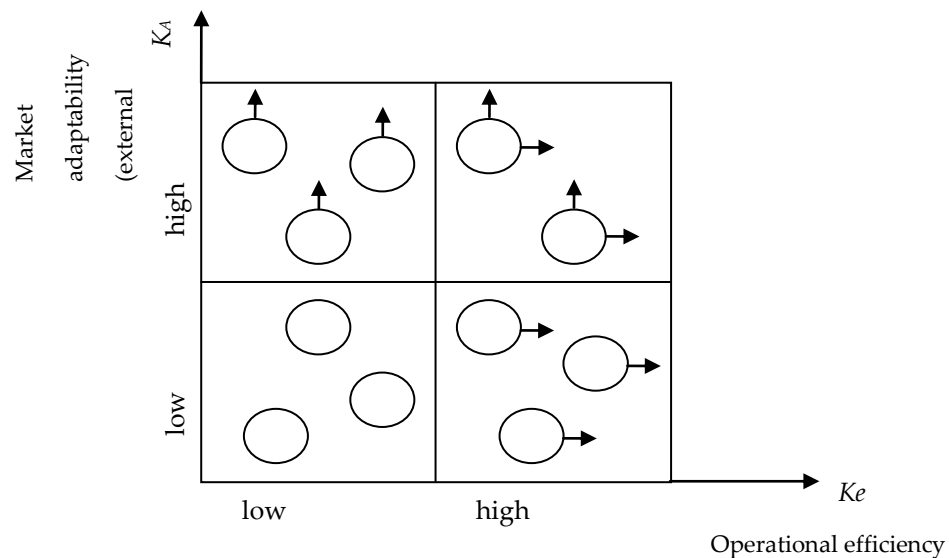


Figure 3. *Differentiation of innovation changes according to their influence on sources of enterprise's competitiveness*

The next stage is to examine selected activities for their compliance with productive capacity of the enterprise, its resource potential, level of staff efficiency, established organizational culture, etc. Based on matrix-resource modeling we evaluate compliance of innovative activities with the above mentioned criteria. In this form of assessment innovations under evaluation are placed vertically in the matrix, and existing financial, economic, labor, information and other resources of the enterprise are put horizontally (Table 2).

Types of resources	Innovations under evaluation				Restrictions on types of resources
	$H_1 = C_1 X_1$	$H_2 = C_2 X_2$	...	$H_n = C_n X_n$	
$P_1$	$P_{11} X_1$	$P_{12} X_2$	...	$P_{1n} X_n$	$\sum P_{1j} X_j \leq P_{1\phi}$
$P_2$	$P_{21} X_1$	$P_{22} X_2$	...	$P_{2n} X_n$	$\sum P_{2j} X_j \leq P_{2\phi}$
$\vdots$	$\vdots$	$\vdots$	$\vdots$	$\vdots$	$\vdots$
$P_m$	$P_{m1} X_1$	$P_{m2} X_2$	...	$P_{mn} X_n$	$\sum P_{mj} X_j \leq P_{m\phi}$

Table 2. Matrix-resource model for evaluation of innovations

The completed matrix is an optimization task, formulation of which is as follows. It is required to maximize information about the study of  $n$ -dimensional area described by the

unknown quantities of the innovations under consideration ( $X_j$ ), provided the limited amount of resources ( $P_j$ ), considering optimality criterion ( $C_j$ ), which can be defined as an average expert evaluation of the significance of each innovation for the enterprise:

$$F(I_j) = \sum_{j=1}^n C_j X_j \rightarrow \max, \quad \sum_{j=1}^n P_{ij} \cdot X_j \leq P_{i\phi},$$

$$X_j = \begin{cases} 0, & \text{if the innovation is not implemented} \\ 1, & \text{if the innovation is implemented} \end{cases}$$

(1)

$X_j$  values, which can be obtained by solving the problem, help to model a program of innovation, backed by necessary resources for its implementation. It should be noted that the current task in the above interpretation differs from the classical optimization task. First of all, it concerns the solution obtained. In classical optimization problem (for instance, Kantorovich et al., 1972) as a result of its solution optimal allocation of resources among all considered innovative projects is obtained, which is not correct from the standpoint of practical implementation, since any innovation project  $X_j$  requires resources to be defined in advance for its implementation. Therefore, their partial allocation is not enough for realization of the project. In the interpretation of form (1) only the most relevant and backed with resources will be implemented.

## DISCUSSIONS AND FURTHER RESEARCH

Nevertheless, the comprehensive evaluation of the innovation activities impact considers all possible effects, including economic, research, resource-based, social, economic, ecological enhancements, must be seen in a close relationship. Mentioned above interrelation determines the interdependence of these effects and some artificiality of its differentiation. The main difference is in the nature of these effects and the time to obtain the expected result. If businesses through innovative reforms achieve lower material and energy production (resource effect) and lowers its cost, this leads to an economic effect in the form of additional profit.

The described model can also be used to evaluate compliance of planned innovations with the level of management of any type of organisation. In this case, management functions and its implementation level evaluated by expert, which are placed in the matrix instead of the resources. A result of innovations to improve working conditions is followed by improved safety and reduced loss of working time (social effect).

The considered value chain contributes into one integral effect, resulting with a clear sustainable competitive strategy of the company.

So, the authors consider the proposed approach to the selection of prospective innovation projects, taking into account required resources for their implementation, to be universal. It could be applied to organisations of any form of ownership, organizational and legal forms.

The principal contribution of this paper is to provide a comprehensive and integrative theoretical framework for defining competitive strategy of today organization. Future research should involve the development and validation of the model to include empirical testing.

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## **‘RELIABILITY’ OF ONLINE PAYMENT PROCESS – A STUDY OF END USER’S PSYCHOLOGY**

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### **ABSTRACT**

Reliability is an abstract term and often used in the stream of engineering as a performance measure. In behavioural science when we talk about reliability what does it actually mean? Which parameters can be used to measure the term reliability? What are the major dimensions of the term ‘reliability’? A conceptual framework of the term ‘reliability’ has been designed using two phases. In first phase analyzing the literatures and interviewing frequent online shoppers, it was found that from end user’s perspective e-payment process consists of four stages, each stage having some reliability component associated. In the second phase questionnaire consisting of nineteen questions was circulated to get data on customer perception about reliability of e-payment process. Five major factors were explored. The results show customers perceive rectification of errors in time and with least intervention from their end is the greatest influencer of reliability of e-payment process. Confidentiality of customers’ personal and financial data is the next most important dimension of reliability of e-payment. Online shoppers perceive that a timely confirmation of their e-payment should be in process to add reliability to the system and a proper authentication technique can improve the overall reliability of the e-payment process.

**Keywords :** e-payment, reliability, confidentiality, authentication, confirmation, rectification

### **INTRODUCTION**

Electronic commerce is the process of buying and selling or exchanging of products, services, and information via computer networks including the Internet (Voss, 2003). An online shop, e-shop, e-store, Internet shop, webshop, webstore, online store, or virtual store tries to create a similar situation of buying products or services at a bricks-and-mortar retailer or in a shopping mall. Many payment methods can be used for online purchases (Hsieh, 2001; Roberts, 2004a; Roberts, 2004b). Online payment is defined as an electronic payment made via a web browser for goods and services using credit or debit cards (Bitpipe, 2006). Online payment is considered more time-efficient and cost-efficient, convenient and flexible for customers and businesses (Sorkin, 2001; Yu, His, & Kuo, 2002).



Online shoppers commonly use credit card to make payments, however some systems enable users to create accounts and pay by alternative means, such as debit card, various types of electronic money, cheque, wire transfer/delivery on payment, postal money order, paypal etc. The financial part of a transaction might be processed in real time (for example, informing the consumer that their credit card was declined before they log off), or might be done later as part of the fulfillment of the process. For any digital payment system to succeed the criteria needs to be fulfilled are acceptability, anonymity, convertibility, efficiency, integration, scalability, security, reliability, usability.

Electronic payment is an online service which is invoked when a customer gets involved in online transaction. It is important for a business to know whether a service, when offered to its customers, meets customer expectations or not. Service quality measure came into prominence with world famous SERVQUAL model by Parasuraman et al. subsequently when various Internet based and mobile based services became popular, models like, e-SQ and e-SERVQUAL (Zeithaml et al, 2000), WebQual (Watson and Goodhue, 2000; Barnes and Vidgen, 2002), SITEQUAL (Yoo and Donthu, 2001), eTailQ (Wolfenbarger and Gilly, 2003), GIQUAL (Tsoukatos and Rand, 2007), BANKZOT etc. was introduced. All of these models were concerned with quality of online services. These researches pointed out security of payment (Szymanski and Hise, 2000; Bauer et al., 2005; Siu and Mou, 2005; Khan and Mahapatra, 2009; Gupta and Bansal, 2012; Ashwina and Kiran, 2012) and privacy (Khan and

Mahapatra, 2009; Akinci et al., 2010; Gupta and Bansal, 2012; Salarzahi et al., 2012) of related information as one of the most important determinant of service quality of online services. Therefore electronic payment process became researcher's area of interest.

In some of the very early researches of service quality only reliability was identified as a significant dimension. Various researches on electronic service quality (Jun and Cai, 2001; Han and Beak, 2004; Khan and Mahapatra, 2009; Santouridis 2009; Salarzahi et al., 2012; Gupta and Bansal, 2012) revealed that reliability is one of the most important dimension. The service quality models also revealed that all the quality dimensions were correlated - one influencing other.

Reliability is an abstract term and often used in the stream of engineering as a performance measure. In behavioural science when we talk about reliability what does it actually mean? Which parameters can be used to measure the term reliability? What are the major dimensions of the term 'reliability'?

The objective of the research is to find answer to these questions in the context of e-payment process. Very limited number of literatures can be found on this topic. Therefore to determine the parameters of reliability a two-step method was followed - first, literature review and second, personal interviews with frequent online shoppers. According to the feedback of the online shoppers the electronic payment process was divided into four distinct stages. Most of the parameters associated with these

four stages were also had a link to the past literatures. Additional parameters found in the literature were mapped against the four stages of e-payment process, as well as some parameter not present in the literature came out as a result of the interview process.

Once the parameters were fixed, to find answer to the last research question, data were collected from people who shop online frequently to get details regarding their perception of reliability of online payment process at different phases of online shopping.

This research contributes to the field of service quality, e-payment process and more specifically to reliability. This will help the practitioners to understand the customer perception of e-payment reliability and help them to improvise the payment system.

## CONCEPTUAL FRAMEWORK

Reliability refers to the consistency of performance and dependability of companies (Parasuraman et al. 1985, 1988). Reliability comprises all features of a vendor's ability to perform the promised services timely, dependably, and accurately e.g., providing services at the promised time, provision of error-free services (Jun et al., 2004; Kuo et al., 2005; Van Iwaarden et al., 2003; Jun et al., 2003; Benlian et al., 2011). Li et al. (2002) defined reliability as the ability of e-mail and web-based systems to provide accurate information and perform the promised service. When a website contains guarantees criteria, it increases the company's overall reliability (Kaplan and Nieschwietz, 2003). A study on factors affecting consumers' perception of electronic payment by Ming-Yen et al. (2013) in Malaysia reveals that benefits, self-efficacy, and ease of use exert significant influences on consumers' perception towards e-payment. To study the impact of trust on e-payment channels at Saudi Arabia Saleh (2013) conducted a study which found out security and privacy are important factors that customers consider when using e-payment channels at the time of purchase.

Electronic payment (e-payment) is a service that has been defined as "the transfer of an electronic value of payment from a payer to a payee through an e-payment mechanism" (Kim et al., 2010). Service Reliability is an important consideration for any new service deployment. reliability of transactions on the Internet is important for customers (During the user interaction with the system, the user issues multiple tasks (or requests) at different time points for different services in the system. The user-perceived service reliability is the probability that all tasks in the user session are successfully completed (Wang and Trivedi, 2009). Neuman and Medvinsky (1996) opined that the reliability of e-payment operation system should be available online 24 hours a day without breaking down at any time. The American Institute of Certified Public Accountants, Inc. (AICPA) list five principles and criteria that they evaluate for trust services : security, availability, processing integrity, confidentiality, and privacy (AICPA, 2009). Service reliability depends on service availability of

various networks or computer systems (Keralapura, 2004; Wilson, 1998; Meharia, 2012). service availability corresponds to the concept of service accessibility (Tortorella, 2005). System assurance is defined as reliability and security of trading system that leads to the safe and successful Internet transactions (Lee and turban 2001; Kim et al. 2005; Beldad et al. 2010). Reliability of the system has been linked with system performance under failures (Kulkarni, 1986). Unlike Meharia (2012), privacy and confidentiality parameters have been merged under dimension confidentiality in this research.

To further explore the construct of reliability in e-payment process semi structured interviews (Thompson et al., 1989) were conducted with frequent online shoppers. Most of them were a frequent online buyer and had a good experience in going through the process of e-payment. Based on the literature and interviews a framework was designed which extracts reliability element in each stage of e-payment. This framework depicted in figure 1 has been taken as the foundation of the conceptual model of reliability of e-payment. The four stages are as follows.

*Availability* : after selection of the item the shopping website redirects the user for making e-payment. Therefore for reliability in the availability refers to loading of the payment website, navigation from one page of authentication to the next and the durability of the communication link.

*Authentication*: Reliability in authentication phase depends on the number of password the online purchaser has to input for making an online payment, levels of authentication (minimum 2 level authentications), standardized method of authentication during different online transaction, easiness to follow the instructions while going through the authentication phase.

*Confirmation* : Reliability in the confirmation phase refers to the procedure that ensures the online transaction has failed or successful - it can be through message in mobile, an alert on the screen or an e-mail describing the fate of the online transaction. The confirmation should come within a permissible time limit and there should not be any link failure before the confirmation reaches to the online shopper.

*Rectification* : Rectification phase becomes reliable if problems are effectively handled i.e., proper solution is provided within minimum time and without much interference with the end-user.

*Confidentiality* : Confidentiality refers to the degree to which the website is safe and customer information is protected. This dimension holds an important position in online purchase decision. Customers perceive significant risks in the virtual environment of e-service if there are possibilities of improper use of their financial and personal data.

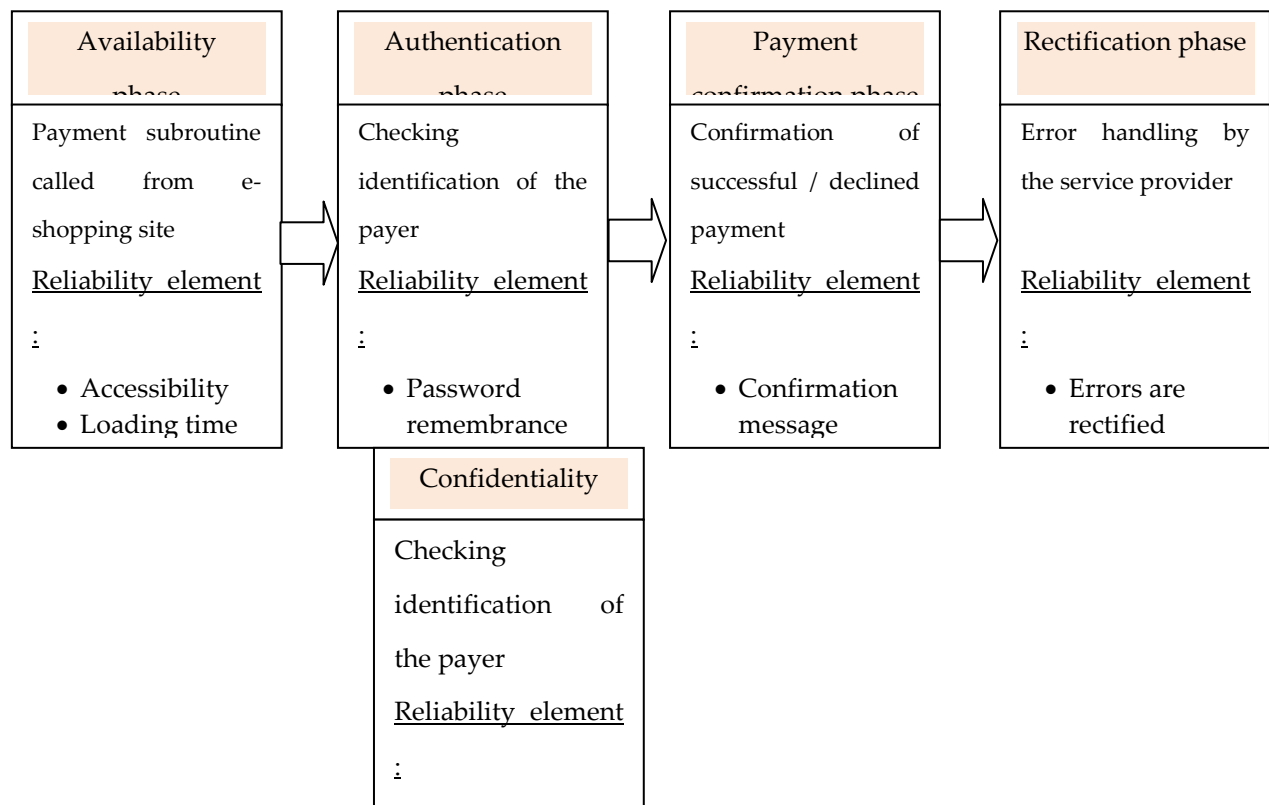


Figure 1: *Reliability parameters involved in the phases of e-payment process*

## THE STUDY

Quantitative data used to extract the dimensionality of a process-based reliability model were collected by means of a structured questionnaire. Respondents judged the performance of nineteen reliability attributes on a five-point Likert-type scale anchored by 1="strongly disagree" and 5="strongly agree". All of the questions were positively formed. Convenience sampling method was followed in this stage. Responses were collected from customers at various shopping malls in city of Bangalore, India. They were asked to recall a recently used online shopping experience. Only the users of online shopping were chosen to assure that participants had sufficient online shopping experience so that all aspects of reliability of making online payment could be evaluated. Among the 345 distributed questionnaires, 278 were fully usable. In order to assess the Table 1 summarizes the basic demographic characteristics of the sample.

Variable	Percentage
<i>Age in years</i>	
< 20	5
20-40	60
41-60	35
<i>Sex</i>	
Male	64
Female	36
<i>Frequency of online purchase</i>	
1 or less times in six months	20
5 to 8 times in six months	65
5 or more times a month	15

Table 1: *Demographics of the sample*

The validation of the reliability scale was done both through exploratory and confirmatory factor analysis and reliability analysis as per the guidelines provided by Churchill (1987) and Gerbing and Anderson (1988). This method of construct validation has been widely established in the literature (Baumgartner and Homburg, 1996).

To verify the construct validity of the measure factor analysis was used in which all the factors loaded highly (0.5 and above) on a single factor ensuring the uni-dimensionality of the scale. About all the subscales had alpha values greater than 0.6 which accounts for internal consistency of the scale constructs (Donio et al., 2006; Nunnally & Bernstein, 1994; Peterson, 1994). Table 2 depicts the alpha values, eigen values and factor loading for different constructs measuring the reliability of e-payment procedure in online shopping.

Dimension items	Item label	Mean	Eigen value	Factor loadings	Cronbach alpha	Variance explained
Availability			2.58		.817	64.60
1. online shopping site can be accessed anytime anywhere	PAVL1	3.35		.748		
2. time to load the page for making e-payment	PAVL2	3.08		.832		
3. time to navigate from one page to another while making payment	PAVL3	3.12		.776		
4. link remains stable in between transaction	PAVL4	3.06		.854		
Authentication			3.15		.911	78.91
1. easy to follow the instructions while the online shopping site authenticates	PATHN1	3.32		.829		
2. need not to remember too many passwords	PATHN2	2.93		.873		
3. easy to follow different authentication method for different payment options	PATHN3	2.78		.937		
4. site provides several levels of authentication	PATHN4	2.83		.910		
Confidentiality			2.01		.754	67.09
1. Personal information are not used for promotional activities	PCNFD1	2.68		.824		
2. Privacy of personal information is retained	PCNFD2	2.65		.851		
3. Confidentiality of financial information (like credit card no, A/C no) is retained	PCNFD3	2.55		.781		
Confirmation			2.5		.817	64.75
1. Always receive payment confirmation after transaction	PCFRM1	2.96		.753		
2. It takes no time to receive payment confirmation after transaction	PCFRM2	2.98		.810		
3. Link never fails before receiving payment confirmation	PCFRM3	3.01		.823		
4. Products/ service delivered after receipt of confirmed payment	PCFRM4	3.13		.821		
Rectification			2.38		.445	59.70
1. transaction problem (if any) is rectified	PRCT1	3.21		.778		
2. It takes no time to rectify the transaction related problems	PRCT2	3.23		.743		
3. shopping site need not to be contacted for rectification of transaction related problems	PRCT3	3.13		.830		
4. needs no effort from my side to rectify transaction related problems	PRCT4	3.16		.737		

Table 2 : Reliability and construct validity of measures of reliability of e-payment

In accordance to the results shown in table 2 no modification were needed in the structure of the construct. Therefore the research continued with five reliability constructs of e-payments.

In the next step the data were subjected to confirmatory factor analysis using AMOS 17.0 to test the model fit and the unidimensionality of the scale items. Maximum likelihood method has been used.

<b>Dimension items</b>	<b>Factor loadings CFA</b>	<b>CRR</b>	<b>AVE</b>
<b>Availability</b>		.818	.534
PAVL1	0.576		
PAVL2	0.793		
PAVL3	0.630		
PAVL4	0.861		
<b>Authentication</b>		.908	.717
PATHN1	0.686		
PATHN2	0.780		
PATHN3	0.974		
PATHN4	0.913		
<b>Confidentiality</b>		.758	.513
PCNFD1	0.700		
PCNFD2	0.802		
PCNFD3	0.639		
<b>Confirmation</b>		.818	.532
PCFRM1	0.632		
PCFRM2	0.705		
PCFRM3	0.768		
PCFRM4	0.802		
<b>Rectification</b>		.776	.467
PRCT1	0.676		
PRCT2	0.635		
PRCT3	0.793		
PRCT4	0.617		

Table 3: *Average variance extracted and composite reliability of the reliability construct*

Next, the extracted dimensions were tested for their reliability and validity one by one by means of confirmatory factor analyses (CFA) with AMOS 17. The local fit indices indicator reliability, average variance extracted (AVE) were employed to evaluate each dimension (Baumgartner and Homburg, 1996; Churchill, 1987). The corresponding measures suggest a good fit of the extracted five dimensions of the reliability scale that are defined as: availability, authentication, confidentiality, confirmation and rectification.

The fit statistics propose a superior degree of reliability and convergent validity of all scale dimensions. In order to examine whether all identified dimensions actually refer to a superordinate construct of overall reliability, a second-order CFA was conducted using all extracted five reliability dimensions ( $\chi^2=275$ ;  $df=147$ ).

### 3.1 Convergent validity

Convergent validity of a scale measure is used to assess whether the individual scale items are related or not. It refers to the degree to which the two measures designed to measure the same construct are related (Netemeyer et al., 2003). To examine the convergent validity the factor loadings and average variance extracted were examined as suggested by Fornell and Larcker (1981). With a very few exception, most of the indicators in this study have factor loadings ranging from 0.5 to 0.9 which is in line with Bagozzi and Yi (1988). The average variance extracted for each factor is more than 0.5, which is acceptable.

### 3.2 Assessing the fitness of the model

Each of the five first-order dimensions has a significantly large ( $p < 0.001$ ) and positive loading on the second-order factor, ranging from 0.35 to 0.62. Furthermore, all correlations between the five constructs are significant at  $p < 0.001$ , indicating that the five scales converge on a common underlying construct (Lages et al., 2005). This suggests that the higher order model accounts for the data well. The global fit indices of the higher order measurement model shown in table 4 propose an excellent model fit. It shows GFI (goodness-of-fit) = 0.911, AGFI (adjusted goodness-of-fit)=0.885, CFI(comparative fit index)=0.945, NFI(normed fit index)=0.889 and RMSEA (root mean square error of approximation) = 0.056 which indicates the unidimensionality of the factors (Gerbing and Anderson, 1988; Lu et al., 2007). Table 4 depicts the values of goodness-of-fit indices for reliability of e-payment.

Fit indexes	Recommend d Value	Observed Value
Chi-square/ df	$\leq 3.0$	1.872
GFI	$\geq 0.90$	0.911
AGFI	$\geq 0.80$	0.885
RMR	$\leq 0.05$	.032
CFI	$\geq 0.90$	0.945
NFI	$\geq 0.90$	0.889
RFI	Close to 0.90	.871
TLI	Close to 0.90	.936
RMSEA	$\leq 0.05$	0.056

Table 4: *Confirmatory factor analysis goodness-of-fit indices*



### 3.3 Discriminant validity

Discriminant validity provides the information about whether the scores from a measure of a construct are unique rather than contaminated by other constructs (Schwab, 2005). To assess the discriminant validity of the constructs the AVE of each construct was compared to their corresponding inter construct squared correlation as recommended by Fornell and Larcker (1981). Discriminant validity is given when the shared variance among any two constructs (i.e., the square of their intercorrelation) is less than the AVE of each construct. Table 5 shows the AVE exceeds the squared correlations with the all the factors.

Construct		Inter construct squared correlation	
Availability	<-->	Authentication	0.040
Availability	<-->	Confidentiality	0.033
Availability	<-->	Confirmation	0.041
Availability	<-->	Rectification	0.052
Authentication	<-->	Confidentiality	0.166
Authentication	<-->	Confirmation	0.031
Authentication	<-->	Rectification	0.084
Confidentiality	<-->	Confirmation	0.054
Confidentiality	<-->	Rectification	0.136
Confirmation	<-->	Rectification	0.223

Table 5 : *Inter construct squared correlations of measures of reliability of e-payment*

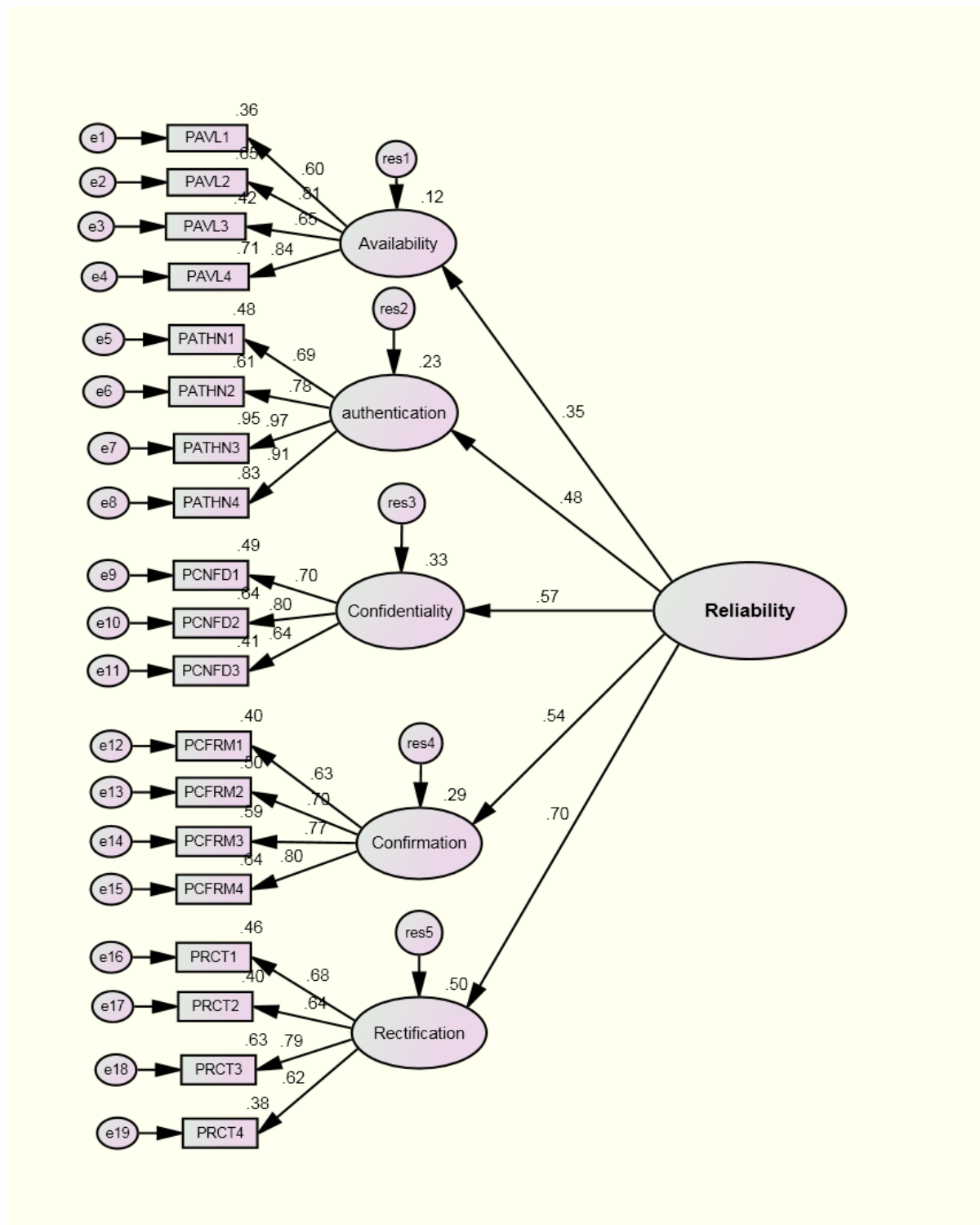


Figure 3 : Measurement model for reliability of e-payment

## DISCUSSION AND CONCLUSION

Reliability is an abstract term. According to the engineering definition, reliability means the probability that a system will accurately perform its specified task under stated environmental

conditions. The purpose of the study was to develop a framework of reliability of e-payment to know what affects reliability while transacting over electronic medium.

e-payment process was analysed and found to be consisting of four main stages. From the analysis it has been found that reliability of e-payment is associated with availability of the payment website, proper authentication while making e-payment, confirmation of the fate of e-payment transaction and rectification of errors if it occurs. Apart from these four dimensions, reliability is also ensured by maintaining the confidentiality of the financial and personal data of the shopper.

The four constructs availability, authentication, confirmation and rectification constitutes of four variables each while the construct confidentiality consists of three variables. First each and every constructs were factor analysed. Five distinct dimensions came out of the analysis without any significant cross loading. All factor loadings were greater than 0.7. The reliability analysis of the constructs has also in acceptable range.

In the next stage confirmatory factor analysis was applied to the data. Availability of the website, authentication, confidentiality, confirmation and rectification - all these converged to the latent construct reliability ensuring that they all are contributing in determining reliability of the e-payment process. The scale suggests that error rectification has the highest weightage in determining the reliability of the e-payment process. Time to rectify the transaction related problem has the highest importance in this dimension. It indicates that if the identified errors are rectified properly taking minimum time that will make the e-payment system more reliable. Confidentiality of financial and personal data of the user is the second most important factor in determining reliability. Analysis of customer perception shows that privacy of personal information is the most important factor in determining confidentiality which in turn determines reliability. Online shoppers perceive that a timely confirmation of their e-payment should be in process to make the system more reliable. Proper authentication technique ensures the overall reliability of the e-payment process. Customers perceive that the proper authentication checks should be in place and the authentication process should be easy to follow. Though availability of the e-payment website has a significant impact on determining reliability of e-payment process but this is the factor which has least weightage. The major determining factor within availability is the network link which is responsible for loading time of the e-payment site and time taken to navigate from one page to another.

The results indicate that the online shoppers have matured and the technology has also been well adopted as the customers are giving more weightage for rectification and less for availability as availability of the e-payment site is taken for granted.

## LIMITATION OF THE STUDY

Reliability is an important dimension in the research of service quality. Reliability has been identified as one of the major dimension in the researches of e-service quality also. Reliability of e-service encompasses the aspects related to the usage of the whole website. This research has analysed the reliability perception regarding e-payment only. Therefore it deals with the transactional part of the e-service only. Analyzing reliability of e-service as a whole including the transactional and the non-transactional part may indicate some other important dimensions.

The demographic factors can be significant predictors in assessing reliability of e-payment. Factors such as age and educational level can be considered as significant determinants reliability. Separate analysis has not been done these demographics.

Through more critical analysis of the e-payment process some new phases can be identified where reliability parameters plays an important role.

The sample has been taken from Bangalore area only. Taking samples from other metro cities like Delhi, Mumbai can give different result.

In emerging economies like India usage of Internet using mobile media and other than mobile media is quite high though compared to this usage of e-commerce is quite low. In such a situation, alanysis on what the non-e-commerce users of Internet perceive about reliability of e-payment could be useful information for web service providers.

## SCOPE FOR FURTHER RESEARCH

Reliability is an important dimension that determines service quality. In various phases of the service process parameters are checked for accuracy to ensure reliability of the system. Not much work has been done on this specific construct of service quality scale. Analyzing the online shoppers' perception it can be seen that reliability is influenced by many other constructs of service quality like system availability, confidentiality etc. Therefore improvement in the areas like availability, confidentiality will have a considerable impact on the reliability of the e-payment system. This leaves an immense scope of work in the area of reliability.

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## LIVING UNDER HARSH CONDITIONS – FINDING YOUR WAY AS A PUBLIC SECTOR MANAGER

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### ABSTRACT

Harsh conditions for executing management can be a sensible interpretation of the daily managerial work for many public sector managers. This is an argument we, based on teaching and research, rely on from talking with a considerable number of managers in Danish municipalities, regions, state, universities and hospitals.

The paper is based on four personal, micro-level stories told by managers in hospitals. The stories revolve around how they in their daily working 'inner life' try to understand, cope with, and develop new ways to improve their work under what they in general see as increasingly harsh conditions created by a stream of structural changes and budget cuts.

It is about how managers handle daily tasks and experiment with ways to match the ongoing organizational and structural changes in hospitals, and how this inspires the way they experience the actual conditions as managers and the organizational and institutional framework they work within.

The theoretical inspiration is drawn from research on management: Mintzberg and Pettigrew, from strategy-in-practice: Chia and Holt, and from relational leadership: Cunliffe, Hosking, Shotter, and Gergen. The purpose of the paper is to create micro and practice-based pictures of 'the inner life' of public management of today, and how middle managers in Danish public hospitals handle structural change.

**Keywords:** *hospital management, practice based, every day practice, the 'inner life' of middle management, handling ongoing change, entrepreneurial actions.*

### INTRODUCTION

A story is told nearly World-wide about two ghosts traveling through the public sector. One ghost is named budget-cuts, the other managerialism (Hood 2001:12553). This is not a new story. It has its roots back perhaps four decades, and has been told as New Public Management and Governance, increased productivity and efficiency, cutting costs, budget- restrains, and improved steering (Hood 1995; Brunsson & Sahlin-Andersson 2000; Christensen & Lægreid 2007). And at the same time a



critique is directed toward the belief in managerialism that the important things always come from the top of the organization (Alvesson & Svenningsson 2008: 146).

The interplay between these macro stories and what happens in the daily managerial life is analyzed in different ways (Correia 2013). In this paper we want to go even further in the direction toward a micro perspective on management. The analyses will be based on stories told by individual hospital managers on how they through daily practice handle such conditions of change, to unite the general plans for rather drastic change decided by top-management, with the daily interaction between employees, patients, clients and users. These are stories on practical ways through interpretations, 'repair' of inadequate structures, and mundane entrepreneurial activities to manage institutions, divisions, sections, and employees under these changing conditions.

From stories told about conditions and concrete actions by four middle managers in Danish hospitals the paper tries to analyze how these managers in different ways understand the conditions and how they deal with overall, from the top decided, changes in the restructuring the organization and management in hospitals. In this way we want to contribute on how middle managers in the hospital system deal with major structural change under harsh conditions.

## **THE FOUR MANAGERS AND THE DANISH PUBLIC HOSPITAL SYSTEM**

We try to analyze such managerial activities as concrete as possible. So we start with the presentation of the main players. The four managers are placed in middle management positions in hospitals in two, out of the five, regions in the Danish public hospital system. The public hospital system in each region is governed by a politically elected council and managed by a regional hospital management.

Beside their job as managers all four managers, while we were in contact with them, all were involved in activities to increase their managerial skills through post graduate courses and education. They have from one to three decades of experience from the Danish public hospital system starting from ordinary positions as medical doctor, nurse, administrator, or technician, have grown up, and with success advanced in a system, in their perspectives, increasingly filled with change: from many small hospitals to few much larger, in 2007 from twelve counties to five hospital regions, and from traditional bureaucratic and technical administration to New Public Management.

The present change they experience on increased demand for management, steering, budget cuts, and internal mergers within hospitals has much to do with political and administrative goals for increased efficiency through organizing in larger sections and department, and increased horizontal co-ordination in the treatment of patients.

They work in two different Danish hospital regions, but even if the organizational changes made in these regions are not formally identically, in daily practice the structural changes look rather similar.

The job for these four managers, as they see it, is to meet these changes and budget-cuts with intentions to get the best out of it for their patients, and their employees. They experience these tasks as rather harsh, but manageable.

The four managers in this study are: a leading nurse, the leader of a service department, the deputy chief of a hospital division, and a hospital CEO. For this study the four are not chosen to represent anything outside their own management responsibilities and what they actually do. They work in different specific settings and with different tasks. What makes them to some extent similar are, besides they all work in the Danish public hospital sector, and their wish for further insight in their own work, a mutual feeling of harsh times and challenges, and their will and efforts to find new and in a small scale entrepreneurial and innovative solutions.

## **METHOD**

We have met the four managers individually between four to eight times during 2013. We have participated in with each of them for one to two hours conversations as listeners, but also commentators, and discussion partners. From our chosen methodological perspective (Alvesson & Skjöldberg 2009) stories about daily managerial practices are created through interview-conversations between the individual manager and us (Kvale 1996). We do not see ourselves as neutral, objective observers (Czarniawska 2004; Alvesson 2011). We are as researchers always involved, which is the perspective in our relational ontology of doing research (Cunliffe 2001; Gergen 2009; Berger & Luckmann 1966).

Through such conversations with the individual manager where the focus is directed toward what they are preoccupied with at the present moment it is possible to develop an understanding on how changes in the practical daily actions of the individual manager can be interpreted as ways to handle these macro-organizational changes created through decisions in regional councils and the top management of the regional hospital systems. The methodological perspective is to interpret activities at the micro level as seen through the eyes of the four managers.

Our inputs for writing the four tales as they are told in this paper are written statements from the managers, audio taped conversations, and our own notes from the conversations. The method is a kind of co-authoring (Cunliffe 2002). At the same time all the four tales are read and commented upon from each of the four managers before they are presented in this paper.

## **THEORY**

In contrast to studies of macro-change in the public sector where principles of public sector steering, New Public Governance, interactions between politicians and administrators play the important role

the study in this paper is directed toward micro-actions to cope with the daily responses and the practical handling of change. It can be seen as the meeting between 'grand' structural changes, and local routines (Feldmans & Pentland 2003), local norms, and taken for granted. It is the development of practical managerial means for handling new situations, and it has its focus on management-in-practice. We prioritize to analyze the emergent, more than the deliberately planned, (Mintzberg 2009: 153) and we draw on the practice turn in organization studies (Alvesson & Kärreman 2000).

The theoretical framework for understanding these stories and the activities behind are inspired from American pragmatism (James 1909) and especially how actions and interpretations interact and how practice and experiences (Corradi 2010) form the meaning of structural changes and micro actions. And how the interpretation of structural changes both lead to actions directly in line with such structural changes, and to entrepreneurial actions where managers dare to use alternative means and interpretations. Such entrepreneurial handlings of structural macro changes on the micro level of middle management action inspire us to use the concept of wayfaring/wayfinding instead of navigation (Chia & Holt 2008; Ingold 2008) as a perspective on these kinds of management.

Our framework is also inspired from the theoretical work on relational leadership (Cunliffe & Eriksen 2011; Hosking 2011; Uhl-Bien & Ospina 2012). An approach to leadership that emphasizes that leadership takes place and is realized between humans. Hence, the focus is not on the leader as a person, but on how he/she engages in relations with other organizational actors in- and outside the organization and how they through co-constructive practices make sense and handle everyday organizational challenges (Cunliffe & Eriksen, 2011, Hosking, 2011, Gergen 2009). In relation to the managers in this paper focus is on the interaction and relational processes between them and their employees, and how they co-constructively create local interpretations of macro changes.

## **FOUR TALES FROM THE HOSPITAL FIELD**

*The newly promoted leading nurse:* As a result of a general change in the organization and management structures in the regional hospital system Maria has been selected and promoted to a position as leading nurse in a section. The section is a merger between several departments. This was part of a change in the entire regional hospital system: creating rather large sections with a section management under a division with a division management, which again was placed under the hospital management, which again referred to the regional health management and the elected regional council.

Maria interpreted this new organizational structure as a way for the region to increase efficiency, also as a mean to further budget-cuts, and at the same time as a way to better co-operation between the sections under the new division to increase the quality of how the individual patient was treated. She

also saw these changes as new top-initiated ways to strengthening the function of management at the different levels. She enjoyed her new responsibility including responsibility for a much larger staff. But she was from the start unsure of how she part of the new section management could support increased quality for patients.

At the same time she felt a lack of support both from employees, lower level managers, and from some of her fellow managers to support the new structure. To many of her colleagues the change was seen just as more of the usual budget-cut stuff. She also sensed a lack of ability in the section management to talk about the new responsibilities, demands and possibilities. And she experienced a number of defense mechanisms among her colleagues. But Maria gradually developed the idea that the new structure could be turned to the better if something was done concerning communication and meeting activities in the section management.

For that reason Maria decided, even if it was not stated anywhere as her duty, to start a process improvement, and especially focus on one perspective in the new managerial structure: the idea that management should not be left to individuals, but to management teams. For her it became increasingly clear that a functioning team had to be developed out of the section management of five persons.

She therefore gradually at the regular section management meetings introduced themes as: how the section should stay in front of the development within its field, and how the management group should use time for elevating their meetings from only handling operative problems to a level where they regularly tried to analyze the tasks and goals from a more holistic perspective. This can be seen as an entrepreneurial approach to handle the new structure in an innovative way building on Maria's earlier experiences.

To her and to the rest of the section management it created during a sequence of meetings in 2013 a type of management increasingly based on the team, not on five individuals. It also gradually created, in the team, a vision for making the section more visible not only for its own employees and to the division management. She did this also to make the section more visible to show that it worked actively to increase quality in its treatments and its co-operation internally within the division.

*The leader of the support department:* Frederic is the manager of a competence center and support department in the regional hospital system. A couple of years ago his department was created through a merger between two smaller specialized service departments. This was done as part of a modernization and merger process in the entire regional hospital system and at the same time to handle a severe - more than ten percent - budget-cut. It became a department that covers a broad array of support from purchase to financial advising and technical support for all the hospital in the region and the number of employees is one hundred.

Even if the budget cut and expected further cuts plays a role, Frederic's major concern as a manager is the need for change and modernization of the function of his department and its mission and vision. He has, mostly based on his own ideas, re-constructed the department structurally to change it from two separate departments to one to create new lines of co-operation between the different functions, and to create synergy. He has managed to involve his six experienced section managers to create much more horizontal co-operations. An important idea behind this has been to increase the innovative capacity of the department. At the same time he wants to change the department from mainly being a reactive support and purchasing function to become a proactive support function for the technical functions at all the regional hospitals.

His goal is to couple his department in a much more interactive way to the vision of the entire hospital system: placing the patient at the center and create more quality and efficiency. He tries in the same process to learn from the following questions: what mistakes were made during the merger process? And what are the future core-areas for the department?

To Frederic the advice-function directed toward supporting the different part of the regional hospital system and the individual hospitals and departments is as important as the ability to purchase goods cheap and in excellent quality. The entire department has during the next three years to become one competence centre supporting a large number of hospital functions to increase the quality of treatment, but also research and development through his department's deliverance of the most efficient medicine, equipment, and not at least: advice.

According to Frederic this led to a new and positive picture of the department in different areas of its environment and in the regional hospital management, but to Frederic it has also created some difficulties for himself. One of the big challenges for him is to change the views of the department employees and managers from being rather narrow specialists to become specialist with a broader view on co-operation, joint innovation and co-creation, and at the same time assessing the financial and cost consequences behind this view.

His main struggle through the year 2013 has been to balance between the increased expectations from the environments, the budget limits, and the capacity and values of his employees and managers. He also feels the pressure on himself as he sees the amount of work piling up, and he sometimes thinks that he has engaged in a change in vision, strategy and organizing that neither his staff, nor the regional hospital management are quite ready for yet. He reflects now and then if he just should have left his department in its original form.

*The deputy chief of a hospital division:* Helen has just been appointed to deputy chief of a large newly founded hospital division with nearly one thousand employees. She has come from a position as chief physician in a hospital in the neighboring region, a job she was not satisfied with because of very

unclear relationships within the daily management. So she expects a lot from her new job and is eager to perform.

It is not only a new position in a, to her, unknown division and hospital. It is also outside her specialization as a chief physician, and it is a new organizational structure with new managers at the divisional level. She tries to use her general hospital knowledge and experiences to understand the organizational practices that are developing and gradually to define her own function.

Her job is to be responsible for how the treatment of the patients functions and how this is coordinated between the different sections within the entire division. To improve this is a top-priority policy decided by regional council and through instructions from the regional hospital management. But to Helen this policy seems rather abstract and not very concrete described in the official papers.

She is part of the division management group, which also contains her chief, the division manager, and the other deputy chief, responsible for personnel and human resources. But she is a little uncertain of how to define her own function. It is a priority area for the regional council, but in her job she has no authority to instruct employees, managers, sections or groups. If she wants something changed she has to bring it up for the division manager or at a management meeting. To some extent she fears that one could see her job as a kind of staff function.

This rather unclear situation is to her combined with an unclear relationship between the individual managers in the new division management, and also between the division and its sections. She observes many tactical and opportunistic operations between individual sections, not at least when budget-cuts have to be allocated or scarce resources shared. Therefore she decides to give herself a role in the construction of an efficiently working management within the division.

She sees it as possible to use the force that lies in the new situation. She finds out that she has to work for creating a more unified leadership within the division. Her method is to some extent to use her own duties to reach the goal of more efficient production processes: coordinated treatment of patients, and increased efficiency in curing. She works to find out who in the division and section management are or could be the most dedicated toward reaching these goals.

During this process she also learns something for, and about, herself. She came to her new job seeing it as her task as an individual to understand and define the job she had got. But increasingly through this process Helen experiences that while she is working for the goals she has defined important, she also influences on how her fellow managers defines their jobs, and at the same time the way they understand their duties they influence the way she defines her job. The unclear and undefined function of her job and the function of division management motivate her into constructing a new way to function, and creating this way changes her understanding in a more entrepreneurial direction toward being active in creating increased collaboration.

*The experienced CEO in the small hospital:* Chris has been CEO for the smallest hospital in the region for a decade. It is a merger of three even smaller hospital made shortly after he got his present job. The hospital is today located at two different places some miles apart from each other and in this way in two separate local communities. At the same time it is located close to the regional boarder and in close distance to two larger hospitals in the neighboring region.

Chris is rather proud of that he has, together with his staff, managed to keep his hospital alive and able to take patients in directly from the street. This has not been easy in a period of several budget-cuts, fast technological development, centralization, and policies underlining “big is beautiful”. He knows that even if he has been able to cope with that up to now there are big risks for his hospital in the near future.

One of his main concerns is that it becomes increasingly difficult to attract medical personnel for permanent positions especially at one of the locations. Another is that hiring non-permanent staff is extremely expensive and results in coordination difficulties. A third concern is the fact that the recent change of the management structure in the regional hospital system is mostly in favor of the big units.

Chris is occupied with managing a difficult situation. The main formal argument for the existence of his hospital is the time it takes to transport patients from this part of the region, inhabited by twenty percent of its population, to the next nearest regional hospital, and the fact that it is expensive for the region if patients instead chose one of hospitals in the neighboring region closer to the local population. At the same time there seems to be a strong political will locally to keep the hospital alive. But this is also a curse because it means that every time Chris tries to reorganize between his two localities a massive critique appears from some regional politicians and a pressure group from one of the localities.

For Chris to get support to solve this is nearly impossible because small hospitals are definitively not the main priority for the regional hospital management. It seems at the moment occupied with the planning of a new very big and expensive regional hospital as part of a national health plan. The regional hospital management is not especially interested in being involved in the local challenges, and definitely not in having such questions brought up in the regional council. Is wants Chris to handle “his own” problems and to do what is needed, which to him seems in reality to close one of the localities, the one with the strong local support.

Therefore the task for Chris has during 2013 been to balance between regional hospital management goals and new structures, budget difficulties, keeping the quality high with lots of non-permanent staff, handling the local critique from one of the locations, and trying to keep a constructive dialogue with the regional hospital management. In this way Chris is, and have for years, been a manager handling practical problems entrepreneurially to secure the existence of his hospital.

## **ANALYZING THE WAYS THE FOUR MANAGERS INTERPRET ENVIRONMENTS, CHANGES, RELATIONS, AND EXPERIENCES**

Each of the four managers is of course unique, but as we see the four together not very different from other hospital managers and managers in other parts of the public sector, we are in contact with in our research and teaching. Managers who work to find new practical solutions to handle the challenges of structural changes and budget cuts, and who especially in practice and on an every-day basis act entrepreneurially to develop such solutions. They are handling their different managerial tasks, trying to create an acceptable 'inner life' for their employees and patients, and at the same time manage budget-cuts and structural changes. From the four tales the following analysis interpret how environment, the organizational changes, unclearness, experiences, relationships, and entrepreneurial activities are interpreted and handled by the four managers.

*The environment seen from the perspective of a local manager:* The four managers have pictures of the broader environments and general trends in the development of society, the health sector and hospitals. From their different professional background they prioritize different important factors in the environments, but to some extent they – without knowing each other – have similar interpretations of what here and now are happening in the environments of the health sector, and they also have rather similar ideas of what is going on concerning the development within public sector management.

The hospital environments are seen by them as increasingly specialized, increasingly demanding more efficiency and quality in curing patients, and at the same time as demanding economies of scale, larger and fewer hospitals, and 'more for less'. They can in one way agree with these demands, but at the same time they find it difficult to manage all these demands at the same time.

They know they have to manage within these institutional and political conditions. But their primary environment contains for them something much more local (Hosking 2011) and reachable: to Maria and Helen: neighboring departments, section, and the hospital management, to Frederic, in addition to this, important customers and the regional hospital management, and to Chris: also the politicians, regional hospital management, the local population, and the hospitals in the neighboring region.

*The organizational changes and unclearness:* The interpretations of the practical consequences of the formal organizational changes are in the four tales filled with flux, unclearness, and uncertainty (Tsoukas & Chia2002; Chia & Holt 2009). None of the four managers have a clear, total and fixed picture of how the present changes will turn out in practice. They know a great deal about the formal lines and the formal ideas behind the present changes in organizational structures. But they also express that it is nearly impossible to anticipate the practical outcome of the interaction between new formalized managerial structure, the mergers and the creation of larger units, the plans for more cross



functional co-operation, and the daily operations. On top of that they are almost certain that the next budget-cut, the next organizational change and the next policy for re-structuring is lurking just around the corner. But they have no certainty about how much it will change and when it will appear.

Even if they have a rather clear perspective on overall structures in the change plans decided by the regional council, and see such plans as structured after rather simple formalized principles, then the actual, local consequences of these plans and what is expected of them look much more as processes where much is in a flux. This constructs for them an image of an ever changing environment (James 1909: 735 - ). The managers interpret these change processes from their individual local perspective, job function and local colleagues and employees. The way they experience the environment seems connected closely to how they interact with the local actions, norms, values and taken-for-granted.

The flux and unpredictability they experience from the realization of the actual plans, but also from the health and public sector environments in general makes them aware that they increasingly and actively have to develop means to cope with these ongoing, but incalculable changes, and they are quite certain that such means have to be flexible and closely coupled to persons and means close at hand. They work to create what they see as here-and-now solutions that couple the formal changes transformed into the local environment with the practices, taken for granted and norms of their section, department or hospital, but they also, as the stories Frederic and Maria tell, think ahead.

*The use of experiences and relations:* The four managers all have a fairly long career in the health sector – at least ten years. That have given all of them an impression that this sector is in a constant and increasing flux and change. This experience tells them that the next major change will appear within a few years and the next budget-cut will appear perhaps within the next year. So even if they are unsatisfied with this flux, it also gives them the belief that nothing is permanent and that their managerial actions also have to be a preparation for the next unpredictable change. At the same time they express that their experiences tell them that change of many kinds within hospitals increases.

Chris as CEO is perhaps the manager who is the most certain that new changes will appear because of the tension he experience between the local actors, the regional hospital management and his hospital. He has a solution he recommends to the regional hospital management, but is not sure that it will be followed. Frederic is using his experiences differently. He tries to use his knowledge about the flux and uncertainty to create new processes in his department in constructing an efficient competence center that will become a major player in delivering advices and services to all the hospitals in the region. His experiences tell him that it is important to be on the move and induce change.

Maria with her background in nursing and her promotion in the new organizational structure uses the experiences she has gathered as a manager at a lower level to work actively to create and develop what she sees as an important managerial team-structure. Using her professional competences as a

nurse and a manager she delivers an input to the team-building process. Helen is perhaps the manager who most dramatically has to transform her experiences as former chief physician where the natural-science 'one best solution' defined by her individually has, as she gradually move from a peripheral to a central position in the daily management of the division, to be changed to a more team-oriented soft and organizational style.

What seems to be increasingly important news to Helen, are for the three other managers something rather well-known. It is the co-construction processes with fellow managers Frederic and Chris rely on the close co-operation with their management teams, and Chris would have liked a closer co-operation with the regional hospital management to solve the local problems. They both express the importance of involving other managers and employees. This co-constructive approach is also what brings Maria to try to create stronger relations to the management team she is part of. Even if she is not the chief, but a member of the management team she tries to work actively for producing relationships that foster efficient decision-making in the team. Concerning Helen who came from an unsuccessful managerial co-operation in her former position also gradually involves in team-building processes within the division-management.

*Every-day entrepreneurial activities:* As described above the 'grand plans' for structural change and the budget-cuts created by the regional hospital management are not followed by detailed plans for implementation. The four managers know that they have to develop local solutions that will meet the new budget requirements and the increased expectations for efficiency from the regional hospital management concerning the new organizational and managerial structures and the creation of larger divisions, sections and department.

Chris has in his ten years as CEO constantly been engaged in the struggle for keeping the relatively small hospital alive as an independent unit with a broad specter of functions. He together with his management team has through the years developed a number of structural solutions, which could be seen as useful by the regional hospital management and the regional council, and at the same time not creating too much bad will among one of the localities where the hospital is located. Some of them have been accepted and implemented, others have been rejected. Also in the present situation he knows that the plans and ideas he has to present for the regional hospital management also have to be seen as innovative, entrepreneurial and politically acceptable.

Helen is in another situation because she changes her previous way of being entrepreneurial presenting individually developed solutions as a chief physician to an increasingly relational way to work together with her new colleagues in the division management. Maria, on the other hand, worked in her new job much more actively to present and discuss new solutions with her fellow managers in the section management. A way to manage that uses the skills and competences of an experienced

nurse, but in a much more entrepreneurial style and including co-managers from quite different professions.

Based on his story Frederic is perhaps the most entrepreneurial manager of the four. He sees the hospital system in the middle of a rather dramatic change from a stable structured and administrated type of organization with different and relatively separated professional groups fighting for influence and resource to something quite different. What he works toward is for his department to be part of a much more integrated type of organization where the need for quality and efficiency in the cure of patients demand much more strategic integration between medical, nursing, advising, servicing and managing.

## DISCUSSION

These managers are part of middle management in the Danish public hospital system. What they do are to try to construct a more promising future out of a situation filled with flux and unclearness by building their often rather mundane ideas into the present (Kornberger 2013). They do this without knowing for sure if these ideas are compatible with the 'grand structural plans' from the regional hospital management and without knowing if they will be accepted and further developed by their fellow managers and their staffs.

These ideas and how they have to act according to them are part of the daily work to fill up the gap between the grand plans and the daily dynamic of managing fragmented and interrupted (Mintzberg 2009:20) It is also the way these managers tries to couple between the preconditions of the 'grand plans' constructed after an navigating philosophy where the departure point of the organization and the entire hospital system is A, the arrival point is B, and the pattern of movement from A to B is linear and following a certain logic. And the 'reality' of the day-to-day change where much of the movement is emergent and where the next step is defined while it is taken, which can be seen as a wayfaring process (Ingold 2008: 75-76; Chia & Holt 2008).

This 'co-ordination' between the plans for structural change and the daily activities of middle management can be seen as part of the normal duties of a manager – to ensure that the production process is running smoothly and to use the newest and most efficient means created by specialist and the top-management and communicated down into the organization. This is an important perspective to see this under and a way to define the daily activities of management.

But it is more than a coordinating process. It is how the individual manager not only fills out the gaps in the formal plans for change. We can also be seen as the way managers tries to 'repair' inefficiencies in the formal plans. In these activities they bend or even move beyond some of the structural constrains. They do this with the intention to find workable solutions that functions toward the

patients, the staff, fellow managers and neighboring departments, sections and divisions. They try from the rather structural reforms to create manageable processes.

What this look as in the analyzes of the four tales could be seen as a kind of examples on how an important part of the public sector, the hospitals, are engaged in change not only through the plans and formal structural changes of the specialists and top-management, but certainly also from the daily entrepreneurial 'repair' of the practical inconsistencies of the formal plans. This way of seeing this important part of public management is directly connected both to the structural changes and to the environmental and organizational change.

This can be interpreted as an important change in the function of management in hospitals and in this way as part of the entire renewal of the organizing patters. According to the four managers the managerial system of hospitals are in an ongoing change process. A process that goes from stability to flux, from long lasting structures to the launch of new plans and structures nearly before the previous have been taken into practice, and to increased importance of as well new managerial principles introduced as part of the structural plans and increased demands toward managers to manage. And as cycles that overlap each other, create disturbances, fight for attention, influences each other etc.

Seen in the perspective of the four managers this reveals a picture of the interplay between the daily response to flux, unclearness and uncertainty both in the environments and internally in the hospital organization, and the ways experiences are used to create entrepreneurial and practice innovative ways to build relations and to manage together. What we see in these four tales is not only managers living up to new standards, but also creating new standards to make the structural plans workable and through practical, entrepreneurial activities to improve the function the hospital, its divisions, sections and departments.

## CONCLUSION AND PERSPECTIVES

One important conclusion from the four tales is how the managers prioritize the co-operation within the management group and in this way the co-creation of new practical ways to handle the daily managerial tasks. Important is also the accept that even when the structural plans both calls for improved weight on management and at the same time calls for increased team-work the managers choses to use the team as a mean for improved weigh on management, instead of individual action.

The second conclusion is that even if structural plans includes principles on how to manage the actual managers on the different levels have to use both their entrepreneurial skills and their experience as managers to find solutions that they can use in the local practice, some of them in line with the formal structural changes and some of them bending the structural constrains to find a workable solution that both follow the intentions of the 'grand plans' and create space for the daily coordination.

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## IMPACTS OF THE FEAR OF FAILURE ON THE DYNAMICS OF ENTREPRENEURSHIP IN CEEC BELONGING TO THE EU SINCE 2004

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### ABSTRACT

The **purpose** of the present article is to investigate impacts of the fair of failure on the dynamics of entrepreneurship in CEEC that entered the EU in 2004. A special attention is paid to entrepreneurial employees' (intrapreneurial) activities and the innovation orientation, as the faire of failure often leads to individual choice to perform innovative activities while being employed or to use a good business opportunity while creating a new business. Based on Global Entrepreneurship Monitor (2012), nearly all of these countries belong to the efficiency-driven group of countries (except Slovakia and Slovenia) and seek for improvements of their innovation systems. **The research question of the present paper is: how the fair of failure impacts the dynamics of entrepreneurship among Central and Eastern European Countries** (further in the article, CEEC) that entered the European Union in 2004. The research is based on the Global Entrepreneurship Monitor methodology and a comparative analysis method. The introduction part of the article serves as the conceptual framework where the main entrepreneurship-related definitions, classifications and development trends are presented. To continue, the conceptual model, which incorporates the main impacts of the fair of failure on the dynamics of entrepreneurship and intrapreneurship, is presented and the GEM methodology explained.

**Keywords:** *entrepreneurship trends, Central and Eastern Europe*

### INTRODUCTION

Although today the term 'Entrepreneurship' experiences its increasing popularity, impacts of social and cultural dimensions, such as the fair of failure, on entrepreneurship and intrapreneurship are not sufficiently examined. Today scholars agree that the fair of failure affects the perception of business opportunities and capabilities, attitudes, intentions as well as the decision to become an intrapreneur (entrepreneurial employee). The fair of failure in many cases can lead to individuals' willingness to operate 'under the roof of employer', where principle risks are managed by top managers and/or

owners, or can discourage individuals to start business. To better understand impacts of the fair of failure within the entrepreneurial dynamics, it is important to have a profound understanding of historical development of the term of Entrepreneurship. An academic and theoretical concept of entrepreneurship emerged in the 17th century (it was first mentioned in Richard Cantillon and Adam Smith's works); this area had not received sufficient attention until the end of 20th century (Stephenson, 2003). Casson, Yeung, Basu et al (2008) point out that entrepreneurship is examined quite extensively, but a single definition of entrepreneurship is still not found.

One of the newest and most recent definitions proposed by Shane and Venkataraman (2000) emphasizes: **Entrepreneurship** is a branch of business science which seeks to explain and understand how do opportunities rise and what results they bring to the creation of new or improvement of existing products or services (Shane and Venkataraman, 2000). Based on this definition, entrepreneurship is an area of human activities that consist of the following key factors that could be potentially affected by the fair of failure: 1) Seeing opportunity; 2) Understanding what is necessary to do to exploit this opportunity; 3) The ability to manage business, originated from the observed opportunities (Shane and Venkataraman, 2000).

It is valuable to draw the attention to the Madura (2006) definition of entrepreneurship which defines entrepreneurship as a process consisting of the disclosure of options and development through innovation, taking into consideration entrepreneurship resources, locations and status.

Based on Barringer and Duane Ireland (2006), the essence of entrepreneurship is the transfer of ideas and application of them in the market. Madura (2006) gives a definition which states that entrepreneurship is not necessarily a process of creating new organizations. Entrepreneurship can be found in an existing organization. According to Casson, Yeung, Basu et al (2008) a contemporary entrepreneurial philosophy began to evolve rapidly in the 20th century, whereas large-scale organizations established in the 19th century were working in newly developing sectors such as Electricals, Chemicals, Communications, and Automotive. The need of a new-type professionals emerged, as universities were not preparing them. All these factors accelerated the scientific research initiatives of entrepreneurship. In addition, the shift towards service industries has modified the entrepreneurial concept (Casson, Yeung, Basu, and Wadeson, 2008).

The topic of the present publication is innovative and relevant not only because of the complicity of the term 'Entrepreneurship', but also because of the specificity of the region and impacts of the fair of failure on entrepreneurship in this region. The selected countries (Slovakia, Slovenia, Hungary, Czech Republic, Poland, Lithuania, Latvia and Estonia) are similar in their experience of once in their history lacking knowledge-driven national systems of innovation; thus, their integration to the EU manifested in quite radical modifications of their economies, reshaping innovation processes as well as expressing



potential and progress which varied from one country to another. The communism experience is also associated with the fear of failure, as small and medium companies had little independence in managing their innovation processes and needed more to execute the delegated tasks and objectives. However, two countries (Slovakia and Slovenia) have managed to switch from the efficiency to innovation-driven group of countries, based on GEM classification (2012). Relying on the GEM methodology and classical comparison analysis method, the GEM data of the selected countries is compared while having **a special focus on: the innovation orientation, the block of factors related to the uncertainty avoidance and the fear of failure as well as the block of indicators related to the entrepreneurship dynamics** in the analysed countries.

## **DRIVES AND BARRIERS OF ENTREPRENEURSHIP AND INTRAPRENEURSHIP**

While tackling different historical periods the question of 'What is an entrepreneur?' was answered differently (Hisrich and Peters, 1994). In the 18<sup>th</sup> century Francis Walker formed another definition of 'Entrepreneur', which finally separated people who had capital and were receiving dividends and people who were operating under shareholders' requirements and generating money using their managerial skills. It created the foundation, which was later used by the academic society (Stopford and Baden-Fuller, 1994).

One of the first who had discovered Entrepreneurship was Schumpeter (1942). He emphasized the fact that a definition of an entrepreneur should be related to a person, who is not only willing, but also able to generate a new idea or invention and turn it into a successful innovation, which can be applied in practice. An entrepreneur uses this feature constantly and this allows him/her to discover innovative business models, new products and services. This proactivity significantly contributes to the progress of industries and long-term economic growth, and it is one of the reasons why entrepreneurship is so encouraging. Schumpeter (1942) argued that entrepreneurship gave the world not only new industries, but also a start to combinations of fused sectors. To summarize the Schumpeter's approach the following definition can be used: an entrepreneur is a man who owns and organizes a company for personal gains (Schumpeter, 1952).

While interpreting the ideas of Drucker (1985) and Brut and Julin (2000), Pranckus and Raudonius (2013) argue that entrepreneurship comes from the creativity and support and it is necessary for everyone involved in business. In addition, Stoner (1999) and Freeman (1999) state that entrepreneurship is associated with a higher risk tolerance and innovative thinking. It is clear that features of intrapreneur or entrepreneur can be divided into 'born with' and 'learned to' (Stoner and Freeman, 1999).

The process of entrepreneurship, which could take place not only in the development of new companies, but also within already existing organizations, could be called internal entrepreneurship or intrapreneurship. Intrapreneurship and entrepreneurship share the same features that can be found in all the contemporary definitions of entrepreneurship: a greater risk tolerance, creativity, greater independence and remuneration (Kuřátko, Montagnaim and Hornsby, 1990). These factors are the main driving forces of any kind of entrepreneurship. Many authors describe Intrapreneurship as a Corporate Entrepreneurship. Veronique Bouchard, Olivier Basso (2011) argue that officially intrapreneurship appeared in Burgelman's publication 'Internal Company's Development Process in a Large Diversified Corporation'. These authors argue that the success of the term 'Intrapreneurship' was because it was self-explaining (intra is internal). The early studies of intrapreneurship sought to find answers to the following questions: What is the difference between intrapreneurs and entrepreneurs?; What conditions do explain intrapreneurship?; What factors are stopping an internal entrepreneurship in large companies? (Bouchard and Basso, 2011).

High risk investments in a new business sector required a lot of time and work, but people were led by an entrepreneurial spirit, which allowed to be flexible and to make quick and appropriate decisions (Kansik as Laakkonen and Sapro, 2012). Intrapreneurship releases several strategically important respects: Innovation; Risk; Proactivity (Katz ir Shepherd, 2004).

Intrapreneurship is particularly relevant in today's organizations, as modern people who believe in their talent and value to organizations usually expect something more than salaries. They want the freedom to create and manifest. According to Vince (2002), the absence of freedom creates the dissatisfaction with not only a company itself but also with duties of work. This reduces the productivity and ultimately leads to the search of a new job. Thereby, intrapreneurship is a method of liberating an organization serving individuals who believe that a company can do something different and better (Kanter, 1982). Intrapreneurship upgrades organizations and takes them to the next level (Garret and Covino, 2007). Rod Gapp and Ron Fischer (2007) argue that intrapreneurship is an internal organization process for the creation of separate units. Kolchin and Hyclak (1987) in turn give the greater importance in the process of intrapreneurship to providing new products and services within an organization. Hisrich, Peters and Shepherd (2009) basically follow the same Intrapreneurship results in innovations, it can be new products, services, systems or processes (Kolchin's and Hyclak's, 1987). Intrapreneurship definition is that the innovation process is controlled by employees, not by an organization itself. An organization, according to Politis (2005), provides an appropriate space for employees to work in an environment which provides the satisfaction. Madura (2006) argues that many scientists agree that while purposefully developing and nurturing intrapreneurship the culture can give positive results.

The influence of entrepreneurship and intrapreneurship on firms' economic and financial indicators occurs not only by increasing the revenue or market share. This includes the initiation of a change in business and society. Ross and Unwalla (1986) link innovations to the original source, not only for new products and services, but also for an economic welfare and market stimulation.

Very often it is apparent that an internal businessman is a mix of traditional manager and entrepreneur (Lyles and Schwen, 2005). Active people within a right company and under right conditions can achieve technological and innovative breakthroughs much quicker because they are supported by 'know how' of a company (Mintzberg, 1979).

The organizational culture, according to Wallace, Hunt and Richards (1999), is all company's employees working for one purpose, applying one or another managerial tactics, processes and resources; thus, forming the unique organizational culture. Barney (1986) argues that it is also one of the key competitive strengths of each company. Recently the organization's culture was presented as a fundamental framework to manage innovations, the process of development and commercialization, helping to achieve a long-term success and competitiveness. Hall (2005) states that the environment in which innovation occurs is usually encouraging expectations, dreams as well as supports its members' creativity, experimentation while being risk-tolerant.

Companies that develop the culture of product and process commercialize innovations much faster and easier. The environment which supports the creativity and experimentation enables the staff to use opportunities to develop new products while increasing the likelihood of commercializing the innovation. These aspects match with the philosophy of intrapreneurship, which is why fostering an internal culture of entrepreneurship in the work environment encourages new ideas, procedures, and synergy while encouraging the development of innovations (Wallace, Hunt and Richards, 1999).

The Rule's and Irwin's (1988) study examined measures used by companies to develop and implement the intrapreneurship atmosphere in organizations. There were 33 ways mentioned: Innovation, teams and work groups; Recruitment in order to implement new ideas in an organization; Strategic planning, focusing on innovations; Focused consumer testing of new opportunities and trends observed; Research and development activities.

Kuratko, Montagnais and Hornsby (1990) argue that the intrapreneurship success or failure depends on four factors: Innovation, development, testing and deployment of processes on the market, supported and encouraged by leaders of a company; Remuneration or reward systems designed to celebrate and reward achievements of the staff; Time management, work distribution, creating space for creations and research; The lack of organizational boundaries, which makes the work go beyond daily tasks (Kuratko, Montagnais and Hornsby, 1990).

According to Koen (2000), no matter how strong and creative the team of employees is, if there is no support from the management it is not possible to expect a good result. Antoncic and Hisrichs (2003) divided intrapreneurship into 8 dimensions.

<b>Dimension</b>	<b>Description</b>
1. <b>New company</b>	<b>Establishment of new independent company.</b>
2. <b>New type of business</b>	<b>Business development</b>
3. <b>Innovation of product or service</b>	<b>Development of new services or products</b>
4. <b>Process update</b>	<b>Process innovation</b>
5. <b>Internal renewal</b>	<b>Formation of a new strategy etc.</b>
6. <b>Risk taking</b>	<b>Fast adaption and decision making</b>
7. <b>Proactivity</b>	<b>Management orientation to innovation</b>
8. <b>Aggressive competition</b>	<b>Will to compete</b>

*Table 1. Dimensions of Intrapreneurship*

Source: Antoncic, B., Hisrich R. D. (2003) Clarifying the intrapreneurship concept. Emerald, p. 26

This table shows that there are a sufficient number of channels through which an organization can benefit from intrapreneurship. The most important of these dimensions is the first: the emergence of a new company or branch. However, this is already a result which proves the presence of other dimensions in a company, which confirms that intrapreneurship is not only a powerful engine of innovations, but also a significant response to threats of an aggressive competition. Such factors as the management efficiency, human resource strategies, innovation encouragement tools, the competition in the market, economic, political and social environment as well as cultural characteristics, including the fair of failure, should be carefully analysed further in the paper.

## **METHODOLOGY AND CONCEPTUAL MODEL**

The investigation regarding the impacts of the fair of failure on the dynamics of entrepreneurship in CEEC that entered the EU in 2004 is continued by presentation of the Global Entrepreneurship Monitor methodology. The present article supports important aspects of the research problem already tackled in the scientific literature review by the data from GEM 2011-2012.

Global Entrepreneurship Monitor survey is the largest study in the world on entrepreneurship (covering 90 researchers' teams from different countries and conducted since 1999). The GEM data is gathered annually and is derived from two main sources: GEM Adult Population Survey (APS) and GEM National Experts Survey (NES).

Based on the Global Entrepreneurship Monitor methodology, countries are divided into three groups: 1) factors-oriented countries; 2) efficiency-driven countries 3) innovation-oriented countries. The study of entrepreneurship dynamics focuses on the transformation from one group of countries to another. GEM examines such entrepreneurship characteristics as motivation, innovation, competitiveness and growth potential. In the present article analyzed countries are classified according GEM methodology, as it is illustrated in Table 2.

Country	Group of Country, 2011	Group of Country, 2012
Slovakia	Efficiency--driven economies	Innovation--driven economies
Slovenia	Innovation--driven economies	Innovation--driven economies
Hungary	Efficiency--driven economies	Efficiency--driven economies
Czech Republic	Innovation--driven economies	
Poland	Efficiency--driven economies	Efficiency--driven economies
Latvia	Efficiency--driven economies	Efficiency--driven economies
Lithuania	Efficiency--driven economies	Efficiency--driven economies
Estonia		Efficiency--driven economies

*Table 2. Classification of analyzed countries according GEM methodology 2011-2012*

Source: GEM 2011-2012

Entrepreneurship is seen as a process, covering all the phases of the business cycle: from intending to start, to just starting, to running new or established enterprises and even discontinuing business. These surveys include the issue of new businesses, businesses ownership question or the motives for business terminating.

Survey Objective - the key purposes of GEM is to provide reliable data on entrepreneurship that will be useful in making meaningful comparisons, both internally and among countries with different economies over the time. GEM Adult Population Survey (APS) and GEM National Experts Survey (NES) were conducted using Global Entrepreneurship Monitor methodology. Characteristics of GEM Surveys in each analyzed country are provided in **Appendix B**.

On the national level these two surveys allow monitoring the dynamics of attitude on entrepreneurs and entrepreneurship as well as the level of intrapreneurship in each country. This will provide the necessary guidelines for different sectors of economy in order to achieve the growth of social and economic welfare.

APS survey was conducted using telephone interviews (CATI) method. The sample of respondents was drawn using random representative sample from adult population (18-64 years old). The standardized questionnaire developed by the GEM consortium (7 sections of questions about nascent entrepreneurs, owners, potential entrepreneurs, terminated business entrepreneurs, informal investors, intrapreneurship and innovation). The maximum possible statistical error  $\pm 2,2\%$ .

GEM NES focuses on the experts' opinion of financial support, governmental policies and programs, education and training, R&D transfer, commercial and professional infrastructure, market openness, access to physical infrastructure, culture and social norms, capacity for entrepreneurship, economic climate, work force features, political, institutional and social context. The NES sample comprises a minimum of 36 respondents, with four experts drawn from each of the entrepreneurial framework condition categories. Out of this sample, a minimum of 25% must be entrepreneurs or business owners, and 50% must be professionals. Additional aspects such as geographical distribution, gender, the public versus private sector, and level of experience are also taken into account in selecting the sample random representative sample. Each selected expert was approved by the global GEM team. The interviews were conducting using personal face to face interviews or using web interviews (CAWI) methods. A standardized questionnaire developed by the GEM consortium was used during the interviews.

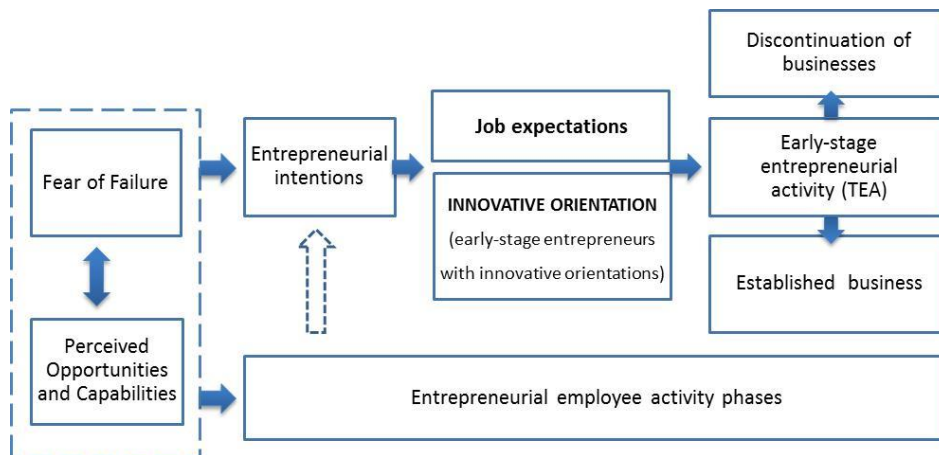
In order to obtain more exhaustive information the combination of data from both surveys (APS and NES) is used. This method of analysis enables to get insights from population point of view about entrepreneurship as well as to get expert attitude toward specific situation in particular country.

Statistical data analysis was conducted using IBM SPSS Statistics software. In assessing the results, it is necessary to pay attention to the statistical error. It is due to the fact that the respondents are selected, rather than performing a continuous survey. This error is calculated mathematically (calculations are attached in **Appendix C**)

The raw data was sent directly to the GEM data team for inspection and uniform statistical calculations before being made available to the participating economies. All statistical calculation is done using SPSS program.

The conceptual model of present article is created by modifying GEM model to address the problematic of the present research. Figure 1 shows, how the GEM data is analyzed in the present research by illustrating some details of the processes individuals may go through entrepreneurial behavior. The level of fear as well as perceived business opportunities and capabilities will influence the option individuals may choose: to develop entrepreneurial activities on their own or within the organizations. In addition to the above phases, phases of entrepreneurial activity are identified.

Discontinuation of activities in owning and managing business is also important aspects of entrepreneurship.



**Figure 1. Conceptual model**

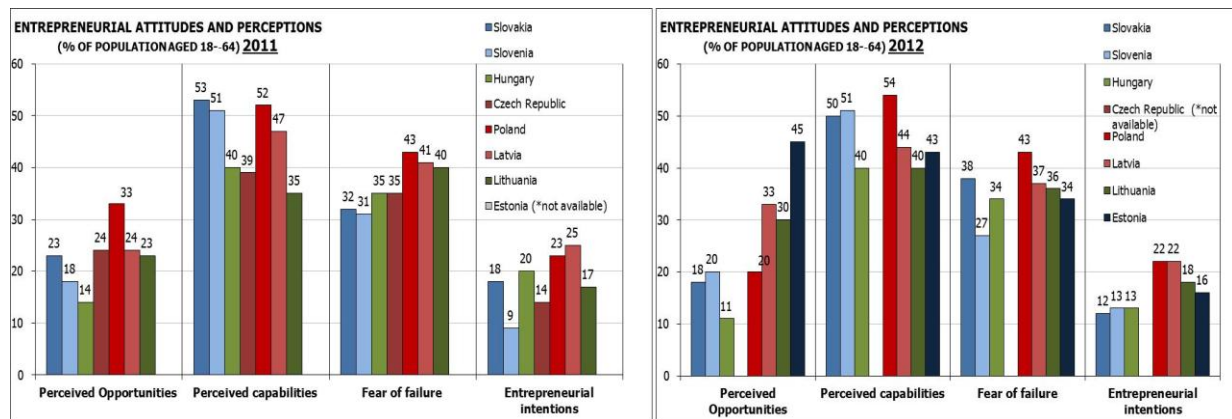
Source: own elaboration based on GEM data

The conceptual model incorporates the three main components that capture the multi-dimensional nature of entrepreneurship: entrepreneurial attitudes and perception, entrepreneurial intentions and activities, entrepreneurial employee activity. They are included in the model as components that produce innovation, economic growth and job creation, without details how they affect and reinforce each other. This uncertainty is intended, since it is reflected the view that all elements may affect each other rather than being components of a direct process. For example, in many countries, much employment creation comes from a small number of ambitious, fast-growing new businesses (Autio, 2007). Furthermore, potentially ambitious entrepreneurs react differently to different regulatory and legal regimes than those who are less ambitious (Levie and Autio, 2011). Moreover, the conceptual model illustrates the entrepreneurial employees' activity as well as their role as potential future independent entrepreneurs.

## DISCUSSION

Driven by the intention to test the conceptual model presented in the previous chapter of the present publication, the attitude and perception factors related to the fair of failure are examined while linking such aspects as the perceived opportunities, perceived capabilities, the fair of failure as well as entrepreneurial intentions. It could be assumed that the fair of failure has a remarkable effect on the perception of opportunities and capabilities. A stronger fair of failure leads to a lower number of perceived opportunities and/or perceived capabilities and as a result affects entrepreneurial intentions. It is interesting to check the dynamics of these factors in the analyzed countries, as they all had a relatively similar political, economic and social experience before entering the EU in 2004. The

trend from the year 2011 to 2012 is as well of significant importance. Poland, Latvia and Lithuania, the countries in geographical proximity, had similar percentages of people who have the fair to start business: in 2011 it varies from 40% in Lithuania to 43% in Poland and 41% in Latvia. In 2012 the Baltic states Latvia and Lithuania experienced the decrease in the fair of failure (by 4 % in Lithuania and Latvia); however, the situation in Poland had not changed. (As it was expected by many economists, Estonia, which joined the Global Entrepreneurship Monitor in 2012, had relatively lower rates of fair of failure (34%).



**Figure 2. Entrepreneurial attitudes, perception and intentions (% of population aged 18-64)**

Source: GEM data 2011-2012

The improved indicators of fair of failure were followed by the improvement in percentages of people who identify the perceived opportunities and perceived capabilities: in 2011 the perceived opportunities in Lithuania and Latvia read 23% and 24% respectively, while the perceived capabilities stand at the marks of 35% and 47% respectively. In 2012 the perceived opportunities in Lithuania increase to the mark of 30% while the perceived capabilities reach 40%. The changes in Latvia are mixed: in 2012 the rate of perceived opportunities improves and reaches 33%, while the rate of perceived capabilities is downgraded to the figure of 44% respectively. Although the percentage of perceived capabilities in Estonia is in line with its Baltic peers, the indicator of perceived opportunities in Estonia is the highest among all the analyzed countries (45%). Poland did not experience the improvement in the indicator of fair of failure from 2011 to 2012; however, its perceived capabilities increase by 2% (to 54%) in 2012, while the number of people capable to identify the perceived opportunities is going sharply down (from 33% to 20%). A minor improvement of entrepreneurial intentions in Lithuania and Latvia (by 1% and 3% respectively) could be associated with the decrease in the percentage of people with the fair of failure and the improvement of their perceived opportunities.

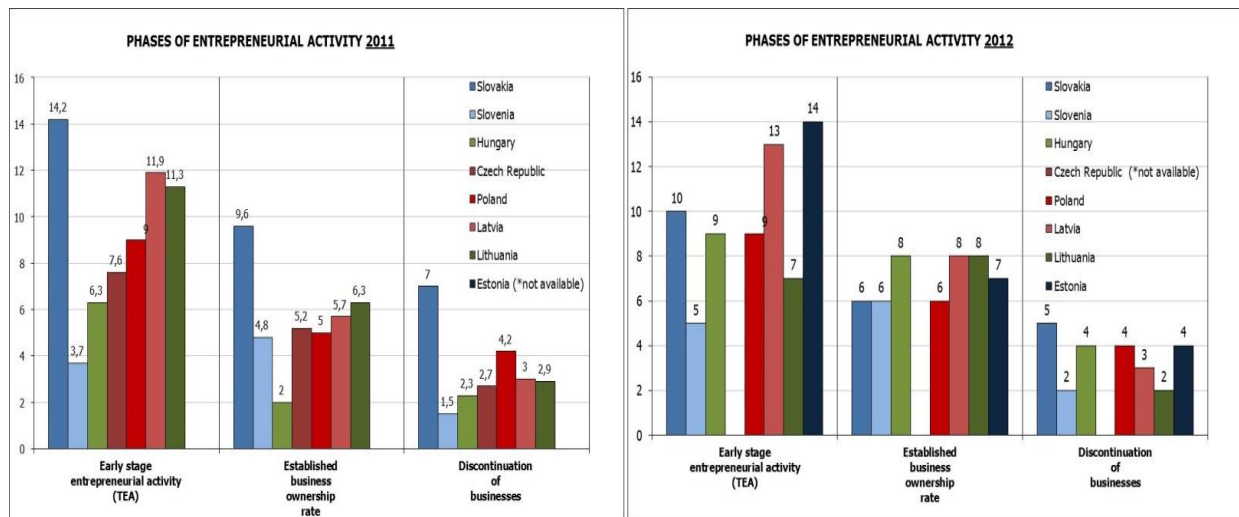
As for Poland, remarkable negative changes in the perceived opportunities are not accompanied by such a sharp drop in entrepreneurial intentions; however, such dynamics is more in line with the



change in the dynamics of the fair of failure. Although the Polish situation calls for the necessity to ingeniously examine results of the year 2013, as there are too radical changes in the analyzed indicators, the 3 countries (Lithuania, Latvia and Poland) have the dynamic of entrepreneurial intentions not contradicting to the changes in the fair of failure. Although the data for Estonia is not available for the 2011, the similarities between these Baltic States are apparent.

The situation in other selected countries is not so clear. Perceived opportunities in 2011 in Slovakia and Slovenia are similar to the levels of Poland (53% in Slovakia and 51% in Slovenia), although there are some remarkable differences with respect to the perceived opportunities (23% in Slovakia and 18% in Slovenia). The perceived opportunities reach quite similar figures in 2012 (50% in Slovakia and 51% in Slovenia), while in terms of the perceived opportunities countries experience some changes (Slovakia experience the decrease by 5%, and Slovenia shows the increase of 2%). An interesting dynamics is witnessed regarding the relation between the fair of failure and entrepreneurial intentions. During the period of 2011-2012 Slovenia is capable to catch up Slovakia in terms of entrepreneurial intentions (this figure improves from 9% to 13%) mainly due to a sharp decrease in the fair of failure (from 31% to 27%). Slovakia increases the opposite trend, the fair of failure increases from 32% to 38%, while the entrepreneurial intentions fall down to 12%, compared to 18% in 2011.

The fair of failure in Hungary and Czech Republic in 2011 reads 35%, while the perceived opportunities are also very similar read (40% and 39% respectively). The perceived opportunities in Czech Republic is more similar to the situation in Slovakia in 2011 (reads respectively 24%), the rate of perceived opportunities in Hungary is the lowest among the analyzed countries in 2011 and 2012 (decreases from 14% to 11%). As it could be expected this leads to the decreasing number of entrepreneurial intentions from 20% to 13%. To conclude, it is obvious that the situation in the analyzed region differs from country to country. Baltic States are more similar to each other, Slovenia and Slovakia already belong to the innovation-driven countries, thus, experience similar dynamics of the fair of failure and entrepreneurship intentions, Czech Republic is more similar to Hungary, but unfortunately the data for 2012 is not available, Hungary is quite specific in its low numbers of perceived opportunities. In all these cases the changes of the fair of failure are accompanied by the dynamics of entrepreneurship intentions, although countries are quite different within the region.

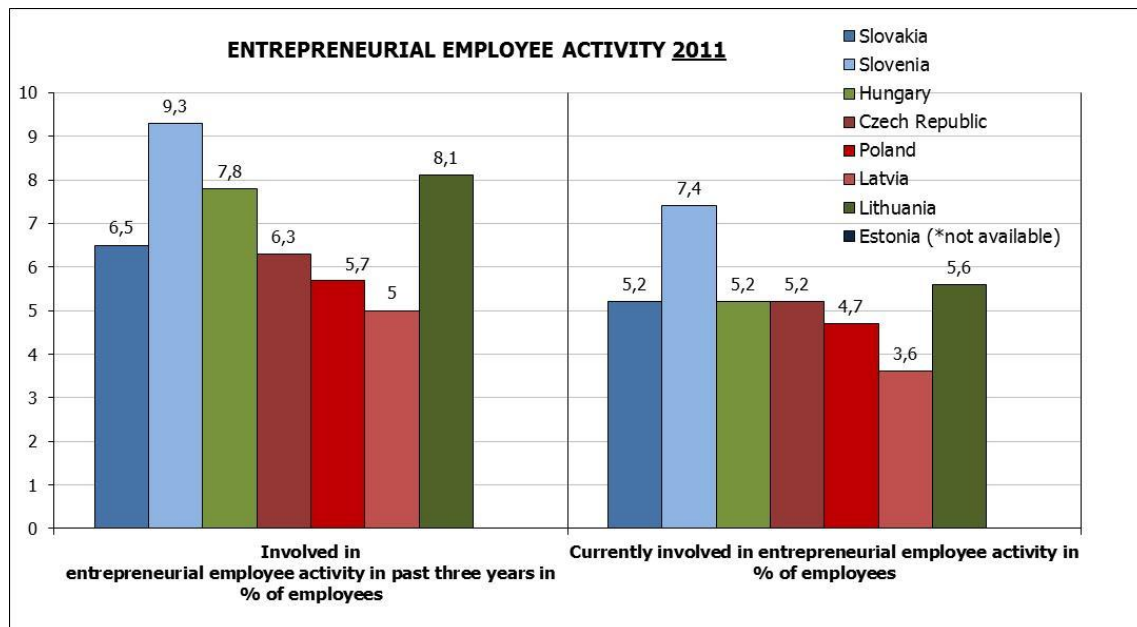


**Figure 3. Phases of entrepreneurial activity (% of population aged 18-64)**

Source: GEM data 2011-2012

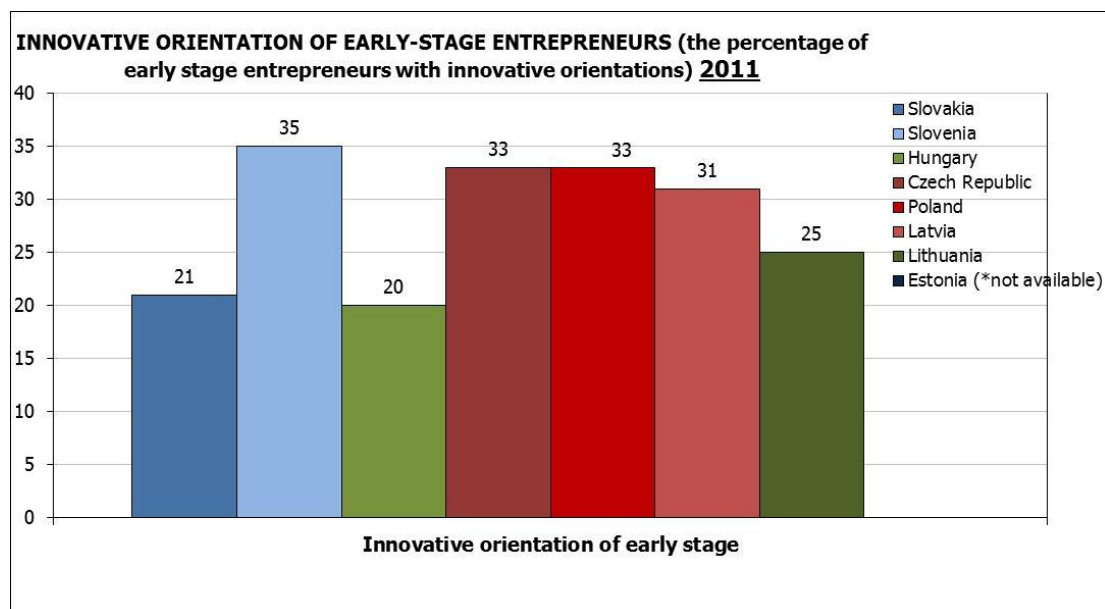
To continue it is interesting to examine the role of fair of failure on the dynamics of entrepreneurship per phase of entrepreneurial activity. The decreasing rates of fair of failure in Lithuania and Latvia do not correspond to higher numbers of Early Stage Entrepreneurs, as in Latvia this figure increases from 12% to 13%, while in Lithuania it drops from 11% to 7%. Both countries experience the increase in the figure of established business ownership (both reaches 8% in 2012), while the decrease of discontinued businesses is witnessed only in Lithuania (from 3% to 2%). The decreasing figure of perceived opportunities and a static figure of the fair of failure in Poland lead to constant rates of early stage entrepreneurship and discontinued business as well as a slight improvement in terms of the percentage of established businesses. Estonia doubles Lithuania regarding early stage entrepreneurship activity and exceeds the figure of Latvia by 1%; however it has a weaker situation regarding the percentage of established businesses (1% less than in Latvia and Lithuania, in 2012) and a higher number of discontinued businesses (reads 4% in 2012).

The rapidly decreasing fair of failure in Slovenia, innovation-driven country, is helping to catch up another innovation-driven country Slovakia in all the stages of entrepreneurial activity (the situation remains idem only in terms of discontinued businesses). The situation in Czech Republic in 2011 in terms entrepreneurship development per stage of phases of activities incorporates patterns of various countries of the analysed cluster. There could be similarities with Poland, Baltic countries and Hungary found. While witnessing the decrease in the perceived opportunities (from 14% to 11%) Hungary improves its position both in early stage entrepreneurship activity and established business ownership (by 3% and 6% respectively).



**Figure 4. Entrepreneurial employee activity (% of population aged 18-64)**

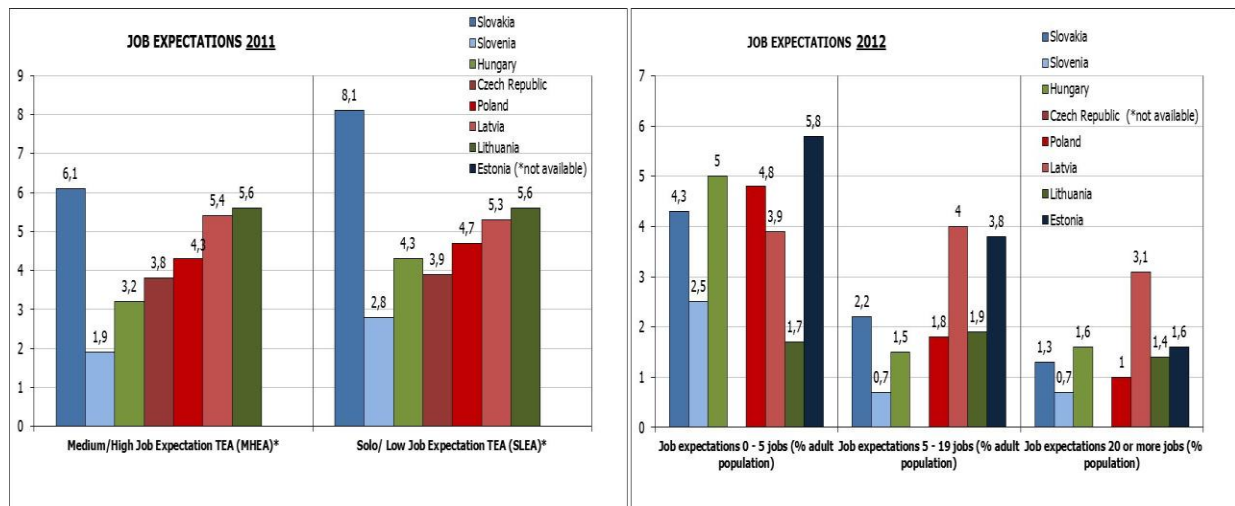
Source: GEM data 2011-2012



**Figure 5. Innovative orientation (% of early-stage entrepreneurs)**

Source: GEM data 2011-2012

Taking into consideration that the data for the innovation orientation of early stage entrepreneurs as well as the entrepreneurial employee activity were collected only for the year 2011 it is still helpful to illustrate the proximity of the analyzed countries. In 2011, Latvia, Poland, Czech Republic and Slovenia had from 31% to 35% early stage entrepreneurs with the innovation orientation, while Lithuania, Hungary and Slovakia possessed from 20% to 25% of entrepreneurs with the innovation orientation.



**Figure 6. Job expectations (% of early-stage entrepreneurs)**

Source: GEM data 2011-2012

The regional convergence is also witnessed in terms of entrepreneurial employee activities. In 2011 Slovakia, Czech Republic, Hungary, Poland and Latvia have relatively similar percentages of employees involved in entrepreneurial employee activity during the past three years (from 5% to 7,8%), while Lithuania and Slovenia were in lead (8,1% and 9,3%, respectively). These countries were also leading in terms of percentages of currently employed in entrepreneurial employee activity out of all employees (5.6% and 7,4% respectively). Other analyzed countries shown results from 3,6% to 5,2%. These numbers prove that the 8 analyzed CEEC countries are quite close in their innovation and intrapreneurial orientation. Although GEM indicators used for 2011 and 2012 for job expectations are slightly different they still show the differences among countries. In 2011 Slovakia (6,1%) takes lead in medium or high job expectations, followed by Lithuania (5.6%) and Latvia (5,4%). In 2012 Estonia joins the leading group of countries, while Latvia becomes a leader in terms of percentages of entrepreneurs who expect to employ 20 or more employees (3.1%).

Having the GEM data on the analyzed CEEC countries compared and the conceptual model tested there should be 3 important conclusions stated:

- Although these countries are very similar in their entrepreneurial dynamics, there are some peers' subgroups seen in this cluster. Baltics States are more converged, although Estonia emerges as a group leader, Slovenia and Slovakia behave like innovation-driven countries and are quite different from other countries, the largest country Poland experiences quite specific development of entrepreneurship, while Hungary and Czech Republic are exceptional, according to many criteria, as it's illustrated in Table 3.

	Fear of failure	Perceived opportunities	Perceived capabilities	Entrepreneurial intentions
Slovakia	↑ +6	↓ -5	↓ -3	↓ -6
Slovenia	↓ -4	↑ +2	0	↑ +4
Hungary	↓ -1	↓ -3	0	↓ -7
Poland	0	↓ -13	↑ +2	↓ -1
Latvia	↓ -4	↑ +9	↓ -3	↓ -3
Lithuania	↓ -4	↑ +7	↑ +5	↑ +1

**Table 3. Change of entrepreneurial indicators during 2011-2012**

Source: GEM data 2011-2012

- It is obvious that countries are similar in terms of intrapreneurship and innovation orientation; however, the fear of failure is more complex and culture-related factor in order to be converging only because of a common economic, social, political and business context of CEEC.
- Apart from such a contradicting argumentation, the role of fear of failure is clearly witnessed in the majority of analyzed countries, which matches the purpose of our article.

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## APPENDIX A: DEVELOPMENT OF DEFINITION OF 'ENTREPRENEUR'

Development of Definition of 'Entrepreneur'	Middle ages - actor or a person responsible for a big scale production projects
	XVII - person, trying to profit from fixed cost contract with goverment
	1797 , Beaudeau: Entrepreneur is person who controls risk of planning, support and management
	1876 , Francis Walker classified entrepreneurs into two groups. Entrepreneurs of the first group profit from their own capital, while others profit from using others' capital
	1934, Joseph Schumpeter: entrepreneur is an inovator
	1964, Peter Drucker : entrepreneur is a person who maximazes opportunities
	1975, Albert Shapero: entrepreneur is a person who shows an inniative and organizes various socio-economical mechanisms while taking risk
	1980, Karl Vesper: definition of an <b>entrepreneur</b> varies among the fields of research (political, business, psychological views are separated)
	1983, Gifford Pinchot: intrapreneur is an entrepreneurial employee working inside of a company
	1985, Robert Hisrich : (angl. entrepreneurship) is a process resulting in something useful while giving all the necessary efforts and taking all the risk.

Source: developed by authors, based on HISRIC, R. D., PETERS, M.P., *Entrepreneurship: Starting Developing and Managing a New Enterprise*. Irwin, 1994, ISBN: 978-0256141474, p. 54-56.

**APPENDIX B: CHARACTERISTICS OF GEM SURVEYS**

	Czech Republic	Hungary		Latvia		Lithuania		Poland		Slovakia		Slovenia		Estonia
	2011	2011	2012	2011	2012	2011	2012	2011	2012	2011	2012	2011	2012	2012
APS Details:														
Vendor	Factum Invenio	Szocio-Gráf Piacés Közvélemény-kutató Intézet		SKDS	RAIT Ltd	Millward Brown SMG/ KRC		Ipsos Tambor SR	GfK Slovakia, s.r.o.	RM PLUS		Saar Poll		
Sampling Method	Mobile Phone (Random Digit Dial)	Mobile Phone (Random Dial from List)		Fixed-line Phone (Random Dial from List), Mobile Phone (Random Digit Dial)	Fixed-line Phone (Random Dial from List), Mobile Phone (Random Digit Dial)	Fixed-line Phone, Mobile Phone (Random Dial from List)		Fixed-line Phone, Mobile Phone (Random Digit Dial)		Fixed-line Phone (Random Dial from List)	Fixed-line Phone, Mobile Phone	Fixed-line Phone, Mobile Phone		
Sample Design	National	National		Regional, urban/rural	Regional	Regional		Regional		Regional		Regional		Regional
Age Range	18-64	18-64		18-64	18-64	18-64		18-64		18-64		18-64		18-64
Sample Size	2005	2002	2000	2000	2003	2000	2003	2000		2009	2010	2004		
NES details:														
Sample Size	48	36		36	36	37		36		36		36		



**APPENDIX C: STATISTICAL ERROR CALCULATIONS**

<b>Sample size</b>	<b>The distribution of responses</b>									
	<b>50</b>	<b>45/55</b>	<b>40/60</b>	<b>35/65</b>	<b>30/ 70</b>	<b>25/75</b>	<b>20/80</b>	<b>15/85</b>	<b>10/90</b>	<b>5/95</b>
<b>10</b>	31	30.8	30.4	29.6	28.4	26.8	24.8	22.1	18.6	13.5
<b>30</b>	17.9	17.8	17.5	17.1	16.4	15.5	14.3	12.8	10.7	7.8
<b>50</b>	13.9	13.8	13.6	13.2	12.7	12	11.1	9.9	8.3	6
<b>75</b>	11.3	11.3	11.1	10.8	10.4	9.8	9.1	8.1	6.8	4.9
<b>100</b>	9.8	9.8	9.6	9.3	9	8.5	7.8	7	5.9	4.3
<b>150</b>	8	8	7.8	7.6	7.3	6.9	6.4	5.7	4.8	3.5
<b>200</b>	6.9	6.9	6.8	6.6	6.4	6	5.5	4.9	4.2	3
<b>300</b>	5.7	5.6	5.5	5.4	5.2	4.9	4.5	4	3.4	2.5
<b>400</b>	4.9	4.9	4.8	4.7	4.5	4.2	3.9	3.5	2.9	2.1
<b>500</b>	4.4	4.4	4.3	4.2	4	3.8	3.5	3.1	2.6	1.9
<b>600</b>	4	4	3.9	3.8	3.7	3.5	3.2	2.9	2.4	1.7
<b>700</b>	3.7	3.7	3.6	3.5	3.4	3.2	3	2.6	2.2	1.6
<b>800</b>	3.5	3.4	3.4	3.3	3.2	3	2.8	2.5	2.1	1.5
<b>900</b>	3.3	3.2	3.2	3.1	3	2.8	2.6	2.3	2	1.4
<b>1000</b>	3.1	3.1	3	3	2.8	2.7	<b>2.5</b>	2.2	1.9	1.4
<b>2000</b>	2.2	2.2	2.1	2.1	2	1.9	1.8	1.6	1.3	1

Example: Suppose that 2,000 respondents answered the question about business owner. Let's say that 79% of them said that do not have any business. This means that with 95% probability it can be said that the real value is in the range of  $79\% \pm 2.5\%$ .

## INFLUENCE OF SOCIAL MEDIA ON THE IMAGE FORMATION OF A TOURIST DESTINATION: DIFFERENCES BETWEEN VISITORS AND NON-VISITORS

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### ABSTRACT

A destination image is perceived differently depending on whether you have previously visited the destination or not. Previous experience influences the image perceived. Non-visitors base their perception on information sources consulted. Recently, information from social media whose content is user-generated (UGC) has become a new information source. The aim of this study is to analyze the weight that different web platforms have as information sources and their influence on motivations for visiting a tourist destination and the perceived image; and contrast it between visitors and non-visitors. The results are useful to define which communication channels are better to invest in and what motivations are better to highlight in the communication strategies, depending on whether the Destination Marketing Organizations (DMOs) prefer to promote the loyalty of visitors or getting new ones. To carry out this research we got 541 surveys from Mallorca, both visitors and non-visitors. We have analyzed the information sources, motivations; cognitive, affective and unique image, general image, the intention to visit and to recommend.

**Keywords:** *destination image, image perception, user generated content, web platforms, social media*

### INTRODUCTION

Destination image is composed of cognitive and affective attributes (Beerli and Martin, 2004) and unique attributes (Qu, Kim and Im, 2011). Cognitive image is composed of the characteristics of the place. Affective image is generated by feelings. Unique image is formed by features that make the place different. Information sources and personal factors influence on the formation of cognitive and affective image (Beerli and Martin, 2004). Cognitive, affective and unique images exert an influence on the perception of the general image, at the same time it has an effect on the intention to visit and recommend (Qu et al., 2011). We can differentiate between secondary and primary images. The secondary image is formed only by information sources consulted before

visiting the destination (Phelps, 1986). The primary image is formed when the destination is visited. How to choose a destination involves some risk, sources of information play an important and essential role in the perception of destinations to be considered in the decision-making process (Mansfeld, 1992).

Information sources can be organic, formed by friends and acquaintances; induced, belonging to the authorities of the destination, suppliers or intermediaries and ads; or autonomous, formed by media, documentaries and movies (Gartner, 1993). Recently there has been research on the Internet as a source of tourist information (Seabra, Abrantes and Lages 2007, Eurostat, 2012) or specific services such as search engines (Buhalis, 2003), social networks (Buhalis and Law, 2008), tour operators websites (Zins, 2009), online reviews (Papathanassis and Knolle, 2011), social media (Mackay and Vogt, 2012). Internet sources can be classified as organic, induced and autonomous (Llodra-Riera, 2013), unlike Beerli and Martin (2004) who considered it only as induced.

Destination image is different depending on whether the individual has visited the place or not (Hsu, Wolfe and Kang, 2004). According to Selby and Morgan (1996), understanding the different perceptions from visitors and non-visitors allows us to see the most important attributes and to re-evaluate the images to be incorporated in the planning of tourism marketing. The level of tourist experience has a positive relationship with the cognitive image among tourists who visit for the first time, and with the affective image between repeaters (Beerli and Martin, 2004).

## LITERATURE REVIEW

### *Formation of the image of a tourist destination*

There is no universally accepted scale to analyze the image of a destination (Beerli and Martin, 2004; Gomez, Garcia and Molina, 2013). Echtner and Ritchie (2003) suggest an ordering of the attributes of a tourist destination, on a scale ranging from psychological to functional. Other classifications suggest dividing the attributes into cognitive and affective (e.g., Qu et al., 2011). Cognitive evaluations imply beliefs or knowledge about the attributes of a destination; an affective evaluation stems from feelings about the destination. In combination, they determine perceptions of an overall image of the destination (Baloglu and McCleary, 1999). Noting the findings of Echtner and Ritchie (2003), Beerli and Martin (2004), Hosany, Ekinci, and Uysal (2007), and Qu et al. (2011) each constructed new models for analyzing the image of destinations. Beerli and Martin (2004) analyze associations using attributes proposed by previous authors and relationships among different components of the perceived image and factors that influence it, including information sources (primary and secondary), motivations, accumulated tourist experiences, and socio-demographic characteristics. According to Qu et al. (2011), cognitive, affective, and unique images of the destination influence the possibilities of repeat visits and intentions to recommend it.

In this research different web platforms complement the indicators that traditionally constituted information sources, as a latent variable. Accordingly, in our effort to analyze the image of tourist destinations, we review

three models: Beerli and Martin's (2004) global view of the image, with its focus on the cognitive and functional dimensions; Hosany et al.'s (2007) in-depth consideration of the affective and psychological dimensions; and Qu et al.'s (2011) study of the unique dimension. In this connection the main objectives of the research are: (1) to define a global model of the formation of the image of a tourist destination and (2) to analyze whether there are differences in the perception of the destination image between the segments of population of individuals who have visited the destination and those who have not visited it.

### *Hypothesis*

#### *Sources of information*

Tourists consult varied information sources to decide and plan their trip. The information obtained by the previous experience also influences the image perceived (Beerli and Martin, 2004). Seabra et al. (2007) and Lookinside Travel (2012) provide an adequate classification of the different sources of information to consider. Furthermore, different Web platforms are used to disseminate tourism content, as we have explained in the introduction. In the literature consulted on the formation of a destination image there is no reference about the relation between information sources and motivations. However, if we reviewed the scientific corpus of persuasive communication, it was seen that persuasive messages, depending on the channels that were transmitted and the target audience that they had focussed, were used to try to change behavior (Stiff and Mongeau, 2003) and therefore had an impact on motivation (Wood, 1982). From the above, hypothesis 1 has been proposed regarding the influence of information sources on the formation of cognitive, affective and unique images, and the influence of information sources on the motivations for travel to a destination.

Hypothesis H1A. Information sources influence the formation of cognitive image.

Hypothesis H1B. Information sources influence the formation of affective image.

Hypothesis H1C. Information sources influence the formation of unique image.

Hypothesis H1D. Information sources influence motivations.

#### *Motivations*

During the last three decades there have been reports on how the sociodemographic characteristics and the motivations that lead to travel influence both the process of image formation, as well as that of the selection of the destination (Mayo and Jarvis, 1981; Gartner, 1993; Baloglu and McCleary, 1999; Beerli and Martin, 2004). Beerli and Martin (2004) evaluated the relationship between the perceived image and motivations of tourists, their accumulated experience of holiday travel and socio-demographic characteristics. The results indicate that: (1) motivations influence the affective component of the image, (2) holiday tour experience has a significant relationship to cognitive and affective images, and (3) the socio-demographic conditions influence the cognitive and affective evaluation of the image. Different indicators are used in the literature to assess the construct "motivation". This research draws on the motivations used in the residential tourism survey conducted by UIB (University of the Balearic Islands) the results of which were published by Campo-Martínez, Garau-Vadell and

Martínez-Ruiz (2010). In addition, we added the general motivation that is taken into account in the PITIB 2012 (relax, discover, enjoy, learn, know), and those defined by Lookinside Travel (2012). Based on the above, we propose the hypothesis 2: motivations influence the formation of cognitive, affective and unique images as follows:

Hypothesis H2A. Motivations influence the formation of cognitive image.

Hypothesis H2B. Motivations influence the formation of affective image.

Hypothesis H2C. Motivations influence the formation of the unique image.

*Cognitive, affective, unique and overall images*

Regarding cognitive image, previous studies (e.g., Beerli and Martin, 2004; Qu et al, 2011) do not show a consensus on the attributes used to measure it; each of them used a different terminology to describe similar concepts. However, some researchers like Qu et al. (2011) agree on quality perceived as a part of the formation of the cognitive image. In relation to affective image, this image seems to have a consensus on the use of the affective attributes relating to personality and image, and to use the same measurement scales considered in different works (Hosany et al., 2007; Murphy, Moscardo and Benckendorff, 2007). For this research, the affective attributes were selected based on the proposed model by Hosany et al. (2007). Finally, with respect to unique image, for this research, the attributes used corresponded to those proposed in the PITIB (2012). We have also added other attributes, used in tourist promotions conducted on Mallorca, and some of the most commonly used terms in searches about Mallorca made with search engines, such as rural farms to stay (to be checked with Google Global Market Finder from December 2012 - January 2013). We also consider rural farms, visits to vineyards and wineries and oil mills, promoted by the Balearics Government. There is a large consensus regarding the cognitive image that has a strong influence on the affective image (Beerli and Martin, 2004; Qu et al, 2011). Baloglu and McCleary (1999) show that evaluations of cognitive and affective perceptions have direct influences on the image. Qu et al., (2011) note how the unique image also contributes to the formation of the overall image. . Note that in this research what is tested is whether the unique image also exerts an influence on the affective image. In response to this the following assumptions are made hypothesis 3: affective image is influenced by cognitive and unique images, and the overall image is influenced by cognitive, affective and unique images.

Hypothesis H3A. Cognitive image influences the formation of affective image.

Hypothesis H3B. Unique image influences the formation of affective image.

Hypothesis H3C. Cognitive image influences the overall perceived image.

Hypothesis H3D. Affective image influences the formation of perceived overall image.

Hypothesis H3E. Unique image influences the formation of perceived overall image.

*Intention to visit and recommendation*

If individuals perceive positively the overall image of the destination, it influences the intention to visit and recommend it (e.g., Campo-Martínez et al., 2010; Qu et al., 2011). In addition, it also seeks to know if the intention to visit the island influences the intention of recommending it. Based on the above we formulate the following hypothesis 4: the overall image influences the intention to visit and recommend and the intention to visit influences the intention of recommendation.

Hypothesis H4A. The overall image influences the intention to visit.

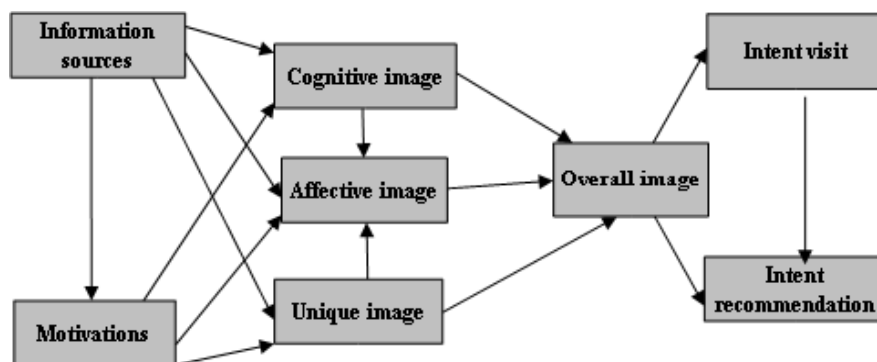
Hypothesis H4B. The overall image influences the intention of recommendation.

Hypothesis H4C. The intention to visit the destination influence tos recommendation.

#### *Proposed model*

The model proposed (Figure 1) is the summary of all the hypothesis proposed. We contrasted the model

*Figure 1: Model of the formation of the image of a tourist destination.*



between visitors and non-visitors.

## RESEARCH

### *Design, methodology and composition of the sample*

This research relied on an online questionnaire. The sample consists of potential users of the Internet. For our empirical investigation, we used image formation of Mallorca. It is a mature tourist destination, for which the main type of tourism is sun and beach. In recent years, responsible authorities have sought to diversify the tourist offer. For measuring the relations between variables we created scales of latent variables, observing explicit indicators, following previous researchers.

The resulting sample consists of 541 valid surveys which were gathered between 19th March and 2nd May, 2013. The universe is of international and national tourists as well as residents of Mallorca and the sample unit of a population of Internet surfers over 18 years old. The level of confidence is 95% for a sample error of 4.21%. We considered the segments of people who reside in Mallorca (23.8%), in Spain outside Mallorca (34.4%) and outside Spain (41.8%). 28.7% do not know residents. 68.25% have visited Mallorca. 13.3% are between 14 and 24

years of age, 61.9% between 25 and 44 years, 20.9% between 45 and 64 years and 3.9% are over 65. 46% of those surveyed were men and 54% women. As regards gross family income, the sample is quite evenly distributed: 20.9% with less than €15,000, 27.7% from €15,001 to €30,000, 21.3% from €30,001 to €45,000, 13.9% from €45,001 to €60,000, and the rest (16.3%) more than €60,000.

### Results

For verifying Hypotheses, first an exploratory factor analysis was performed which allowed us to identify the underlying structure, and to condense the information gathered from the information sources, motivations, cognitive affective and unique images constructs. Their dimensionality was analyzed by means of an exploratory factor analysis of the data using maximum likelihood extraction with direct oblimin rotation (Hair, Anderson and Tatham, 1999).

Latent Variable	Variable measurement	Item		Standardized Lambda	R <sup>2</sup>	$\alpha$ Cronbach	FC	AVE
INFORMATION SOURCES	INDUCED (FINFO1)	INF01	Official sources of tourist information	.615	.379	.894	.939	.510
		INF02	Suppliers	.631	.398			
		INF03	Intermediaries	.617	.381			
		INF04	Media specializing in tourism	.704	.496			
		INF05	Media specializing in areas of thematic interest	.705	.498			
	AUTONOMOUS AND INDUCED (ADVERTISING) (FINFO2)	INF06	Books	DELETED				
		INF07	Travel guides	.675	.455			
		INF08	Documentaries	.710	.504			
		INF09	Films and TV series	DELETED				
		INF10	Advertising	.653	.427			
		INF11	Fairs	DELETED				
		INF13	Friends and acquaintances	DELETED				
		INF15	Internet	DELETED				
	OPINION LEADERS (FINFO3)	INF14	Opinion leaders	.894	.800			
	WEBS OF THE DESTINATION, INTERMEDIARIES	WEB02	Official tourist information	.671	.450			
		WEB03	Unofficial tourist information	.790	.624			
		WEB04	Intermediaries	.580	.336			

	AND MEDIA (FINFO4)	WEB0 5	Suppliers	DELETED			
		WEB1 0	House swapping portals	DELETED			
		WEB1 1	Tourist accommodation letting	DELETED			
		WEB1 2	Hotel reservations	DELETED			
		WEB0 6	Assessments by users	DELETED			
	WEB UGC (FINFO5)	WEB0 7	Tourism blogs	.770	.59 3		
		WEB0 8	General social networks	.649	.42 1		
		WEB0 9	Social networks specialized in tourism	.869	.75 5		
		WEB1 3	Tourist activities	DELETED			
		WEB1 4	Sharing photos	DELETED			
		WEB1 5	Sharing videos	DELETED			
		WEB1 6	Forums	DELETED			
		WEB1 7	Traveler hospitality	.752	.56 6		
		WEB1 8	Letting private houses	DELETED			
		WEB1 9	Maps	DELETED			
	GOODNESS OF FIT			CFI = 0.929			
	$\chi^2 = 427.387$ (95) $p < (0,001)$			GFI = 0,905			
	S-BX <sup>2</sup> = 336.125			AGFI = 0,864			
	BBNFI = 0,911			RMSEA = 0,080			
	BBNNFI = 0,910						

Table 4. Table 1: Confirmatory factor analysis of the scale sources of information

In accordance with the approach, a first-order confirmatory factor analysis was carried out. In order to ensure convergent validity, those items whose load factors were not significant or less than .50 were eliminated (Bagozzi and Baumgartner, 1994) or for those which the Lagrange Multiplier Test suggested significant relationships regarding a distinct factor of which they were indicators (Hatcher, 1994) (Tables 1, 2, 3, 4 and 5). The results, like the different resulting models, that the Chi-squared value is significant although when the size of the sample is large ( $N > 200$ ), this test tends to reject models which fit the data well; with the result that it is an unreliable indicator (James, Mulaik and Brett, 1982). Further, the rest of the specific indicators show a good fit (BBNFI; BBNNFI; CFI; IFI, AGFI and RMSEA).



For example, the confirmatory factor analysis of the scale sources of information (Table 1) shows how opinion leaders is the item with most weight (Lamda .894) followed by social networks specialized in tourism (.869), for measurement the latent variable of information sources. DMO would have to consider the spectrum of information sources, both offline and online, induced and autonomous, for promoting the destination. Besides, platforms which content is user-generated are as influential how traditional sources.

Latent Variab le	Variable measurem ent	Item		Standardi zed Lamda	R <sup>2</sup>	α Cronbac h	FC	AVE
MOTI VATI ONS	KNOWIN G (MOTI1)	MOT03	Discovery	.904	.884	.872	.926	.517
		MOT05	Learning	.691	.477			
		MOT06	Knowledge	DELETED				
		MOT07	Practising Languages	DELETED				
		MOT13	Recommendation	DELETED				
		MOT25	Enjoying heritage	DELETED				
	PLEASUR E AND PHYSICAL (MOTI2)	MOT02	Relaxation	.702	.493			
		MOT04	Enjoyment	.834	.695			
		MOT10	Outdoors	.608	.370			
		MOT16	Nature	.769	.591			
		MOT19	Escape	.620	.384			
		MOT20	Sports	DELETED				
		MOT22	Knowing the island	.602	.362			
		MOT23	Night-life	DELETED				
	PRICE (MOTI3)	MOT14	Price	.566	.320			
		MOT24	Travel deals	.596	.355			
		MOT27	Cheap drinks	DELETED				
	HEALTH (MOTI4)	MOT28	Health	.776	.603			
		MOT29	To find myself	.827	.684			
		MOT32	Escape pollution	.611	.373			
GOODNESS OF FIT X <sup>2</sup> = 286.459 (58) p< (0,001) S-BX <sup>2</sup> = 218.96 BBNFI= 0,905 BBNNFI= 0.895		CFI = 0.922 GFI = 0,925 AGFI = 0,882 RMSEA = 0,085						

Table 5. Table 2: Confirmatory factor analysis of the scale of motivations

The confirmatory factor analysis of the scale of motivations (Table 2), indicates, i.e. that the price is the motivation which items that conforms this latent variable have less weight (Lamda .566 and .596). It can be interpreted that DMO would have not to base their communication strategy highlighting the price, but rather remarking motivations as discovery (.904) or enjoyment (.834).

Regarding the confirmatory factor analysis of cognitive image (Table 3), value for money of accommodation, sports, and nature are the items with more weight in the measurement of the latent variable (with a Lamda of .819, .805, and .770, respectively). These are the functional attributes more known in this case. DMO must consider if it wants emphasize the communication of these attributes or to introduce features of the destination less known.

Latent Variable	Variable measurement	Item		Standardized Lamda	R <sup>2</sup>	α Cronbach	FC	AVE
COGNITIVE IMAGE	NATURE, SPORTS & RECREATION (IMCOG1)	COGT 3	Nature	.770	.593	.859	.932	.515
		COGT 4	Sports	.805	.647			
		COGT 5	Leisure	.624	.389			
	ALTERNATIVE TOURISM (IMCOG2)	COGT 2	Events, conferences, and meetings	.589	.346			
		COGT 6	Health tourism	.738	.545			
		COGT 7	Urban tourism	.742	.551			
	QUALITY OF BASIC INFRASTRUCTURE (IMCOG3)	COGQ 1	Tourism infrastructures	.670	.449			
		COGQ 2	Accommodation (value for money)	.819	.671			
		COGQ 3	Food and beverage (value for money)	.735	.540			
		COGQ 4	Transport to the island	.605	.366			
		COGQ 6	Private transport within the island	DELETED				
		COGQ 7	Friendly local people	.655	.428			
	ENVIRONMENTAL QUALITY / ATMOSPHERE (IMCOG4)	COGQ 8	Natural spaces	.754	.568			
		COGQ 9	Complementary services (activities)	.773	.597			
		COGE 2		DELETED				
GOODNESS OF FIT X <sup>2</sup> = 198.527 (59) p<(0,001) S-BX <sup>2</sup> = 153.23 BBNFI = 0,926 BBNNFI = 0,929		CFI = 0,946 GFI = 0,947 AGFI = 0,918 RMSEA = 0,066						

Table 6. Table 3: Confirmatory factor analysis of the cognitive scale image

Relating to the confirmatory factor analysis of affective image (Table 4), the psychological attributes best considered, in the formation of this latent variable, are pretty, interesting, reliability and sincerity (with a Lamda of .830, .819, .807 and .807, respectively). For the DMO, keep those emotional values in its communication actions is a good strategy because of they are already recognized by users.

In relation to the confirmatory factor analysis of unique image (Table 5), the attributes that influence more, in the formation of this latent variable, are those related with the rural dimension (learning how to make olive oil and wine on location, with a Lamda of .967 and .890 respectively).

Next, we estimate the model (Figure 1), we used SmartPLS2.0 (Ringle, Wende and Will, 2005), and we established the significance of the parameters using a bootstrap re-sampling procedure with 541 sub-samples, equal to the size of the original sample. We provide the results of the structural model in Table 6. To guarantee convergent validity, we eliminated indicators whose factor loadings were not significant at least at 0.6. The resulting model indicated no reliability problems, according to any well-establish criteria: Cronbach's alpha, ( $\alpha > 0.7$ , Nunnally and Bernstein, 1994); compound reliability ( $< 0.6$ , Bagozzi and Yi, 1988; Fornell and Larcker, 1981) and average variance extracted ( $< 0.5$ , Fornell and Larcker, 1981). The most significant differences between visitors and non-visitors are (Table 6): (1) non-visitors give more weight to the webs from destinations, intermediaries and media as a source of information (FINF4). In both cases the UGC Websites are ranked fourth. (2) On the cognitive image, those who have not visited the destination give more weight to the perceived quality of basic infrastructure (IMCOG3). (3) In both segments heritage (IMUNI1) is the factor with more weight to the unique image. Whereas for non-visitors the second factor is the elite sports (IMUNI3) and for visitors the second one is rural areas (IMUNI2). (4) In the case of affective image, non-visitors point in first place sincerity (IMAFEC3), in the second accessibility (IMAFEC2) and in the third the enthusiasm and sympathy (IMAFEC4); for non-visitors the order of the factors is enthusiasm and sympathy, openness and accessibility.

Latent Variable	Variable measurement	Item		Standardized Lamda	R <sup>2</sup>	$\alpha$ Cronbach	FC	AVE
AFFECTIVE IMAGE	AFFECTIVE (IMAFEC1)	AFE01	Unpleasant	DELETED		.929	.955	.587
		AFE02	Pleasant	.794	.631			
		AFE03	Distressing	DELETED				
		AFE04	Relaxing	.761	.579			
		AFE05	Pretty	.830	.689			
		AFE06	Ugly	DELETED				
		AFE07	Gloomy	DELETED				
		AFE08	Exciting	DELETED				
	AFFECTIVE AND ACCESSIBILITY	AFE17	Lively	DELETED				
		AFE18	Stagnant	DELETED				
		AFE19	Friendly	.674	.455			

	(IMAFEC2)	AFE20	Unfriendly	DELETED				
		AFE21	Easily accessible	DELETED				
		AFE22	Isolated	DELETED				
		AFE23	Interesting	.819	.671			
		AFE24	Boring	DELETED				
	PERSONALITY: SINCERITY (IMAFEC3)	AFEP01	Sincere	.807	.651			
		AFEP02	Intelligent	.845	.715			
		AFEP03	Reliable	.807	.650			
		AFEP04	Successful	.672	.452			
		AFEP05	Wholesome	.769	.592			
		AFEP06	Down to earth	.762	.580			
	PERSONALITY: ENTHUSIASM AND SYMPATHETIC (IMAFEC4)	AFEP07	Exciting	DELETED				
		AFEP08	Daring	.702	.493			
		AFEP09	Spirited	.764	.583			
		AFEP10	Original	.736	.542			
		AFEP11	Friendly	DELETED				
		AFEP12	Family oriented	DELETED				
		AFEP13	Charming	.723	.523			
GOODNESS OF FIT								
X²= 464.459 (84) p< (0,001)		CFI = 0,920						
S-BX²= 337.5546		GFI = 0,888						
BBNFI = 0,905		AGFI = 0,839						
BBNNFI = 0,900		RMSEA = 0,092						

Table 7. Table 4: Confirmatory factor analysis of the affective image

To assess the predictive capacity of the structural model, we followed the criteria proposed by Falk and Miller (1992): The R-square of each dependent construct must be greater than 0.1. In Table 7, we provide the corresponding values, as well as the results of the comparison of the model proposed in Some hypotheses cannot be contrasted. For non-visitors, information sources do not influence affective image (H1B), and the cognitive and unique image do not influence the overall image (H3C and H3E). For visitors, information sources do not influence cognitive and affective image (H1A and H1b), and unique image do not influence affective image (H3B). Those results indicate that DMO have to implement different communication strategies. The

channels and the messages have to adapt to those who have visited the place previously or for those who have never visited it before.

Latent Variable	Variable measurement	Item		Standardized Lamda	R <sup>2</sup>	$\alpha$ Cronbach	FC	AVE
UNIQUE IMAGE	HERITAGE (IMUNI1)	UNI01	Hiking through stone paths	.676	.457	.884	.932	.634
		UNI02	Famous artists	.834	.695			
		UNI03	Sibil	.802	.643			
		UNI04	Underground caves	.734	.538			
		UNI05	Villages small markets	DELETED				
		UNI06	Natural parks and sailing	DELETED				
		UNI10	Birthplace of Ramon Llull	DELETED				
		UNI11	Birthplace of Fray Junipero Serra	DELETED				
	RURAL (IMUNI2)	UNI09	Unique landscape	DELETED				
		UNI12	Olive oil on location	.967	.936			
		UNI13	Wine on location	.890	.792			
		UNI14	Saying in a rural villa	DELETED				
	ELIT SPORTS (IMUNI3)	UNI07	Boat races	.674	.454			
		UNI08	Balloons competitions	.745	.555			
GOODNESS OF FIT X <sup>2</sup> = 72.958 (17) p< (0,001) S-BX <sup>2</sup> = 50.88 BBNFI= 0,969 BBNNFI= 0,960			CFI = 0,976 GFI = 0,967 AGFI = 0,931 RMSEA = 0,078					

Table 8. Table 5: Confirmatory factor analysis of the unique image

We can observe that relationships of the hypothesis have a different weight depending on whether the place has been visited or not (Table 7). For non-visitors, first, general image influences the intention to visit and recommendation. Third, affective image influences overall image, affective image on cognitive and motivation on cognitive image. Sixth, information sources influence on motivations and these on unique and affective images. Ninth, information sources influence the unique image and eleventh on cognitive image. And in tenth place, intention to visit influences the intention of recommendation. We could not test the influence of information sources on the affective image, and cognitive image and unique image on overall image.

Regarding destination image formation of visitors, first, cognitive image influences affective image; secondly, the overall image exert an influence on the intention to visit; third, motivations on cognitive image; fourth, affective

image on the overall image and this one on intent of recommendation. Sixth, information sources influence the motivations; seventh, intention of visiting on the intention of recommendation; eighth, motivations on unique image and then on the affective image. Tenth, cognitive image on the overall image. In the eleventh place, information sources influence the unique image and; twelfth, and in a negative form, unique image influences overall image. We could not test the influence of information sources on cognitive and affective image, and the influence of the unique image on affective image.

Factor	VISIT						NON-VISIT			
	Indicator	Load	Valo rt	$\alpha$ Cron bach	Reliabilit y Compos ed	AVE	Loa d	$\alpha$ Cron bach	Reliabilit y Compose d	AVE
INFORMA TION SOURCES	FINFO1	.882	51.1 3	.853	.893	.628	.806	.794	.857	.546
	FINFO2	.818	25.5 2				.779			
	FINFO3	.653	9.42				.687			
	FINFO4	.824	25.9 6				.713			
	FINFO5	.768	18.2 8				.703			
MOTIVATI ONS	MOTI1	.876	42.3 2	.818	.879	.649	.786	.714	.820	.539
	MOTI2	.909	66.4 9				.873			
	MOTI3	.704	12.2 3				.590			
	MOTI4	.715	13.5 1				.655			
COGNITIV E IMAGE	IMCOG 1	.772	24.9 8	.793	.866	.618	.778	.738	.835	.560
	IMCOG 2	.751	18.2 8				.724			
	IMCOG 3	.776	26.1 5				.674			
	IMCOG 4	.842	38.6 3				.809			
UNIQUE IMAGE	IMUNI1	.907	75.5 5	.844	.904	.760	.864	.785	.874	.699
	IMUNI2	.827	24.8 7				.854			
	IMUNI3	.881	36.9 0				.789			
AFFECTIV E IMAGE	IMAFEC 1	.822	32.7 0	.881	.9187	.738	.787	.854	.901	.697
	IMAFEC 2	.869	43.8 3				.844			
	IMAFEC 3	.884	49.9 9				.850			
	IMAFEC 4	.861	41.0 6				.866			

IMAGE *****	N.A	N. A	N.A	N.A	N.A	N.A	N.A	N.A	N.A	N.A
RECOMEN DATION *****	N.A	N. A	N.A	N.A	N.A	N.A	N.A	N.A	N.A	N.A
VISIT INTENTIO N*****	N.A	N. A	N.A	N.A	N.A	N.A	N.A	N.A	N.A	N.A
*** p< .01; ** p< .05; * p< .10 N/A = Not Applicable ***** These variables were measured by a single item										

Table 9. Table 6: Instrument for measuring the structural model: Reability and convergent validity

## CONCLUSIONS

All information sources have a high weight in the process of formation of image of a tourist destination. For both, visitors and non-visitors, induced information sources have a higher weight, i.e. those belonging to the DMO, suppliers and intermediaries. For non-visitors induced website pages also have a lot of weight. Social Media are significant although it is the factor with less weight. Therefore it is advisable to spread content about the destination not only in the official sites but also through suppliers and intermediaries, including their websites, with images that it really wants to project by the DMO marketing plan. For this it is convenient to disseminate the content and images owned by DMO in a Creative Commons or Copy Left licenses. As for cognitive image it is important to project the quality of basic infrastructure to attract new visitors, as it is the dimension that takes greater weight in formation of the cognitive image. In the case of Mallorca, as for the unique image, visitors perceive a rural environment unique, this attribute can be enhanced further since non-visitors perceive heavier elite sports. It is recommended to highlight the quality of basic infrastructure and those unique attributes that visitors appreciate better for attracting new visitors and fulfilling their expectations.

HYPOTHESES	NON-VISITORS		VISITORS	
	◎ standardize d	Valor t Bootstrap	◎ standardize d	Valor t Bootstrap
H1A I. SOURCES ◎ COGNITIVE I.	.219***	2.794	.079	1.381
H1B I. SOURCES. ◎ AFFECTIVE I.	.074	1.4475	.065	1.757
H1C I. SOURCES. ◎ UNIQUE I.	.268***	3.3370	.118**	2.213
H1D I. SOURCES ◎ MOTIVATIONS	.433***	6.6290	.399***	8.548
H2A MOTIVATIONS. ◎ COGNITIVE I.	.475***	6.2974	.471***	9.592
H2B MOTIVATIONS ◎ AFFECTIVE I.	.285***	4.2555	.229***	4.495
H2C MOTIVATIONS ◎ UNIQUE I.	.381***	5.4823	.341***	5.950
H3A COGNITIVE I. ◎ AFFECTIVE I.	.485***	7.6163	.589***	12.945

H3B UNIQUE I. ⊗ AFFECTIVE I.	.124*	1.9354	.011	0.247
H3C COGNITIVE I. ⊗ OVERALL I.	.028	0.2873	.222***	2.916
H3D AFFECTIVE I. ⊗ OVERALL I.	.540***	6.1030	.444***	7.179
H3E UNIQUE I. ⊗ OVERALL I.	.103	1.0615	-.110**	2.098
H4A OVERALL I. ⊗ INTENT VISIT	.560***	9.7924	.485***	10.712
H4B OVERALL I. ⊗ I. RECOMMENDATION	.545***	7.1347	.442***	9.432
H4C I. VISIT ⊗ I. RECOMMENDATION	.264***	3.0024	.378**	7.330
*** p< .01; ** p< .05; * p< .10	R <sup>2</sup> Motivation= 0.188 R <sup>2</sup> Unique image = 0.302 R <sup>2</sup> Affective image = 0.665 R <sup>2</sup> Cognitive image= 0.364 R <sup>2</sup> Overall image= 0.398 R <sup>2</sup> I. recommendation = 0.528 R <sup>2</sup> Intent visit= 0.314		R <sup>2</sup> Motivation= 0.159 R <sup>2</sup> Unique image = 0.162 R <sup>2</sup> Affective image = 0.581 R <sup>2</sup> Cognitive image = 0.258 R <sup>2</sup> Overall image = 0.330 R <sup>2</sup> I. Recommendation = 0.500 R <sup>2</sup> Intent visit = 0.235	

Table 10. *Table 7: Contrast of hypotheses*

As for the model of image formation in both cases has a very significant weight that the overall image influences the intention to visit in first position for non-visitors and second, by those who already know the island. For non-visitors it is relevant that the overall image largely determines the intent of recommendation. We recommend to implement actions of viral marketing, inviting those who have the intention of visiting the destination to convince some companion to travel together with them. In both cases the affective image is the most influential factor in the overall image and the cognitive image on the affective image. For non-visitors cognitive image has no influence on the overall image. For visitors, information sources only have weight on the unique image. In any case information sources affect the affective image; the motivations influence affective image. Visit intention influence recommendation more on those who have already visited the destination. For maintaining the loyalty of visitors it is recommended to use direct and personalized marketing and to propose unique and new attractions in the destination to surprise them and maintain their attention, besides it would be interesting to engage them proposing they invite new visitors. Most hypotheses run better with the group of non-visitors. To attract new visitors it is recommended to maximize cognitive and unique images, using as prescribers webs from suppliers and intermediaries. It is advised too to emphasize affective attributes and motivations associated with the variables best rated by visitors, who are the ones who really know the destination. In summary, first it has to spread knowledge about the place, then emotions associated to motivations for visiting it.



For further research it would be interesting to analyze what kind of image and content are shared by a destination through intermediaries and suppliers' websites and social media and how it can modify or enrich the image projected by the DMO.

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## STRUCTURAL CAPITAL AND BLACK AND SCHOLES METHOD: AN APPLICATION

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### ABSTRACT

This paper provides a study based on the assessment of structural capital through the real option approach. In this way, the Black and Scholes method is used for an economic assessment of structural capital proposing research findings deriving from an empirical application. Methodology is based on a qualitative approach. Sourcing of data has been carried out through secondary sources.

**Keywords:** *structural capital, real options, Black and Scholes, economic value, evaluation, intellectual capital.*

### INTRODUCTION

The paper studies the assessment of structural capital providing an updated conceptualization of methods existing through international literature, especially regarding real options methodology (Black and Scholes, 1972; Boer, 2000; Tseng and Barz, 2002; Zeng and Zhang, 2011).

In particular, structural capital (Lerro and Schiuma, 2013; Teece, 2000) defines future cash flows and understanding its economic value with traditional methods is not easy.

Hence, the proposal is to provide a study of international methods used by academic and professional communities to evaluate structural capital, by proposing an application based on the Black and Scholes method (Black and Scholes, 1973).

In this way, the aim of research is to understand how to evaluate structural capital (Chucchi, 2013) and if the economic value obtained from the application (findings) reveals an adequate measure of the asset. Therefore, the discussion is based on strong and weak points of Black and Scholes method in the assessment of structural capital.

The research approach is based on a qualitative method. Starting from a single method approach (Myers, 2013), the research is developed according to the study of international literature.

The article has the following structure. After the introduction, section two provides a literary review of methods used to assess structural capital. In particular, the study focuses on real option methods (Black and Scholes method). Section three describes the research methodology. Section four proposes the

research findings. Section five presents discussions and implications on research. Section six illustrates the conclusions, the limitations of the study and suggests future research.

## LITERATURE REVIEW

The rule of structural capital (Itami, and Roehel, 1987) derives from the importance by all companies to create long term value (Daum, 2003).

Structural capital is part of intellectual capital (Edvinsson and Malone, 1997) and it is defined as a set of all the knowledge, coded and un-coded related to the company. Moreover, it includes patents, property rights, formal and informal organizational procedures, databases, networks, best practice, Internet, corporate values and organizational culture (Stewart, 1997; Sveiby, 1997).

In knowledge economy, the economic assessment of structural business (Boer, 1999; Ferrata, 2007) is necessary to understand its value in decision making process and to complete extraordinary operations between contemporary companies (Zanda, 1974). In this way, doctrine has undertaken the following methods:

1. cost-based approach;
2. value-based approach;
3. real options approach.

The cost-based approach is based on the economic of structural capital through actual or abstractly costs incurred for his creation, historical or reproduction cost.

The value-based approach defines structural capital estimating future economic benefits deriving from company assets.

The first two approaches need to be applied by knowing defined income and financial flows in assessing knowledge. For this reason, the real option approach (Amram and Kulatilaka, 1999; Banerjee, 2003; Barnea et al., 1980; Trigeorgis, 1997; Tseng and Barz, 2002; Wu and Tseng, 1986; Zhang et al., 2008) appears suitable for the assessment of structural capital (Hilli et al., 2007) and particularly risky investments, although this assessment approach has also been criticized (Black and Cox, 1976).

The real options forms (Black, 1971; Black, 1989; Buckley et al., 2002; Myers and Majad, 1983; Zeng and Zhang, 2011) are the following: development real option; deferment real option; real flexibility option; abandonment real options.

The real options assessment can be based on another two methods:

- the Cox and Rubinstein method (Cox and Rubinstein, 1985);
- the Black and Scholes method (Black and Scholes, 1973).

The Cox and Rubinstein assumption is that price option underlying evolves according to a binomial multiplicative process. An example is that underlying asset can grow with probability  $q$  of a

multiplication factor equal to  $u$ , or decrease with a probability equal to  $1 - q$  and by a factor equal to the multiplication, replacing condition as  $u > d$  (Cox et al, 1979).

The Black and Scholes method estimates structural capital starting value of real option (call and put) with the following inputs (Fontana, 2011): rate index known with the same value in the time; it is possible to sell without resource. There are not limitations to the use of income deriving from this kind of sale; there are no transaction costs; share price follows random walk; the share does not pay dividends during the life of a derivate; there are no opportunities without risk.

Fixed boundary conditions, one expression of Black and Scholes formula (closed; call model) is the following:

$$c = S_0 \times N(d_1) - Xe^{-i_1 T} \times N(d_2)$$

where:

$c$  is the price of a european call real option;

and

$$d_1 = \frac{\ln\left(\frac{S_0}{X}\right) + \left(i_1 + \frac{\sigma^2}{2}\right)T}{\sigma\sqrt{T}}$$

$$d_2 = \frac{\ln\left(\frac{S_0}{X}\right) + \left(i_1 - \frac{\sigma^2}{2}\right)T}{\sigma\sqrt{T}} = d_1 - \sigma\sqrt{T}$$

in which:

$c$  is the price of a (European) call (real option);

$S_0$  is the share price at the time 0;

$X$  is the strike price;

$i_1$  is the risk free rate;

$T$  is the contract residual life;

$\sigma$  is the volatility of share price;

$e$  is the base of a natural logarithmic function;

$N(x)$  is the cumulate function of a standardized normal.

The second expression of the Black and Scholes formula (put model) is the following:

$$p = Xe^{-i_1 T} \times N(-d_2) - S_0 \times N(-d_1)$$

where:

$p$  is the price of a European put real option and other letters are specified before.

## RESEARCH APPROACH

The qualitative research approach (Myers, 2013) is based on an analysis of the literature related to structural capital assessment, with special reference to the Black and Scholes method and real options approach.

Starting from a single method approach, data acquisition (Yin, 1994) was achieved through secondary research sources specified as follow:

- scientific books and articles (international literature);
- databases (particularly, ebsco and google scholar), news, documents and websites.

Application of the Black and Scholes method is used for the economic assessment of structural capital. Therefore, the proposed research findings deriving from an empirical application based on a certain number of hypotheses, utilizing the above method through excel.

## THE ANALYSIS OF CASE STUDY AND THE RESEARCH HYPOTHESES

We widely accepted the Idea about economic value of companies in the new economy derives mainly from intangible assets that belonging to them (a right, called intellectual property). Trademarks, patents, and licenses are strategic assets to, generate cash flows independently with respect to the business complex.

Despite the traditional methodology of discounting cash flows is well suited to their assessment, but in recent years certain intangible assets are come up, and raised a few questions about their accuracy of estimation. Particularly, we are referring that type of intangible assets to generate cash potential flow, since for this reason it becomes difficult to assess according to the DCF method.

In fact, the use of real options drives from the inability of traditional capital budgeting tools to measure flexibility and discretion of management inherent in some investment projects.

The idea underlying in the approach questions is it allows you to tie the net present value of the investment in two components: The first one represents by the static nature of the NPV (Net Present Value), and the second one is in dynamic nature represents options in the project.

In order to clarify the steps which led to a reasonable estimation value of an option, analyzes the case of evaluation of a license to a drug with opportunities for deferment of production, throughout the following research hypotheses.

In this sense it is reasonable to assume that a company uses the license in the case where the cash flows arising from the sale of the products exceed the costs incurred to make it happen.

The assessment methodology follows the chosen approach of ongoing Black & Scholes model. Particularly, the present value of cash flows ( $S - \text{cash flow}$ ), resulting from the introduction of the drug today is 34.165,30 (millions) euros determined by discounting for a reasonable rate of return on capital

"i" (risk free rate), of average flows prospective conceivable conservatively through an assessment of the potential market of reference of the product.

The initial cost (K – investment) of the drug is in fact equivalent to 25.491,34 (millions) Euro, the license is also legally protected for 15 years. The risk free rate was determined based in the gross yield on government bonds (BTP 15 years of 13.01.2014 ) and equal to 2.50 % .

And the standard deviation ( $\sigma$  std deviation), of listed companies operating in the biotechnology sector (Source: Damodaran "Jan"- 2014 ) appears to be a equal to 1.3364 .Consider that the product would have some impact on the market , particularly in the innovative way, it is easy to imagine the generation of extra profits by latter.

At the same time, however, the extra- profits will be linked to the period of legal protection of the license and then any delay (y - expected cost) in associating (linking to period) use of the same cost, the company bare on extra- profits.

## RESEARCH FINDINGS AND DISCUSSION

The inputs have outlined lead through the application of the Black & Scholes method with the following estimates for "d" and "N (d)" (table 1 and 2; figure 1).

		t1	t2	t3	t4	t5	t6	t7
data	S (cash flow)	€ 34.165,30	€ 34.165,30	€ 34.165,30	€ 34.165,30	€ 34.165,30	€ 34.165,30	€ 34.165,30
	K (investments)	€ 25.491,34	€ 25.491,34	€ 25.491,34	€ 25.491,34	€ 25.491,34	€ 25.491,34	€ 25.491,34
	t	15	14	13	12	11	10	9
	i1 (risk free rate BTP 15 years - 14 jan 2014)	2,50%	2,50%	2,50%	2,50%	2,50%	2,50%	2,50%
	$\sigma^2$ (Std deviation Damodaran jan - 2014 - sector biotechnology)	1,3364	1,3364	1,3364	1,3364	1,3364	1,3364	1,3364
y (expected cost)		6,67%	7,14%	7,69%	8,33%	9,09%	10,00%	11,11%
Results	$d_1$	2,387724416	2,311274858	2,232219092	2,150272415	2,065094585	1,976273533	1,883302464
	$d_2$	-2,089551542	-2,014184655	-1,935897989	-1,854324943	-1,769015482	-1,679406979	-1,58478058
	$N(d_1)$	0,991523476	0,989591161	0,987199757	0,984233163	0,980542974	0,975938097	0,970170305
	$N(d_2)$	0,018329052	0,021995075	0,026440098	0,031846343	0,038445646	0,046536377	0,056508098
Value	Lecence Value	12.140,93	12.042,64	11.920,69	11.768,96	11.579,55	11.342,18	11.043,30
	VAN	8.673,96	8.673,96	8.673,96	8.673,96	8.673,96	8.673,96	8.673,96
	Option Value	3.466,97	3.368,68	3.246,73	3.095,00	2.905,60	2.668,23	2.369,34

Table 1. *Black & Scholes Application*



	t8	t9	t10	t11	t12	t13	t14	t15
S (cash flow)	€ 34.165,30	€ 34.165,30	€ 34.165,30	€ 34.165,30	€ 34.165,30	€ 34.165,30	€ 34.165,30	€ 34.165,30
K (investments)	€ 25.491,34	€ 25.491,34	€ 25.491,34	€ 25.491,34	€ 25.491,34	€ 25.491,34	€ 25.491,34	€ 25.491,34
t	8	7	6	5	4	3	2	1
data i1 (risk free rate BTP 15 years - 14 jan 2014)	2,50%	2,50%	2,50%	2,50%	2,50%	2,50%	2,50%	2,50%
$\sigma^2$ (Std deviation Damodaran jan - 2014 - sector biotechnology)	1,3364	1,3364	1,3364	1,3364	1,3364	1,3364	1,3364	1,3364
y (expected cost)	12,50%	14,29%	16,67%	20,00%	25,00%	33,33%	50,00%	100,00%
Results $d_1$	1,785546849	1,682195477	1,572185656	1,454085663	1,325908068	1,184837001	1,027128909	0,852961383
$d_2$	-1,484193202	-1,376366276	-1,259492292	-1,130870817	-0,986147295	-0,817461678	-0,607741116	-0,303066298
$N(d_1)$	0,96291367	0,95373453	0,942046249	0,927038721	0,907564925	0,88195905	0,847820116	0,80315964
$N(d_2)$	0,068878836	0,084354132	0,103926286	0,129054734	0,162030419	0,20683232	0,271679594	0,380919669
Value Lecence Value	10.664,76	10.181,82	9.559,76	8.748,10	7.669,24	6.193,26	4.067,96	624,04
VAN	8.673,96	8.673,96	8.673,96	8.673,96	8.673,96	8.673,96	8.673,96	8.673,96
Option Value	1.990,80	1.507,86	885,81	74,15 -	1.004,72 -	2.480,70 -	4.606,00 -	8.049,92

Table 2: Black &amp; Scholes Application

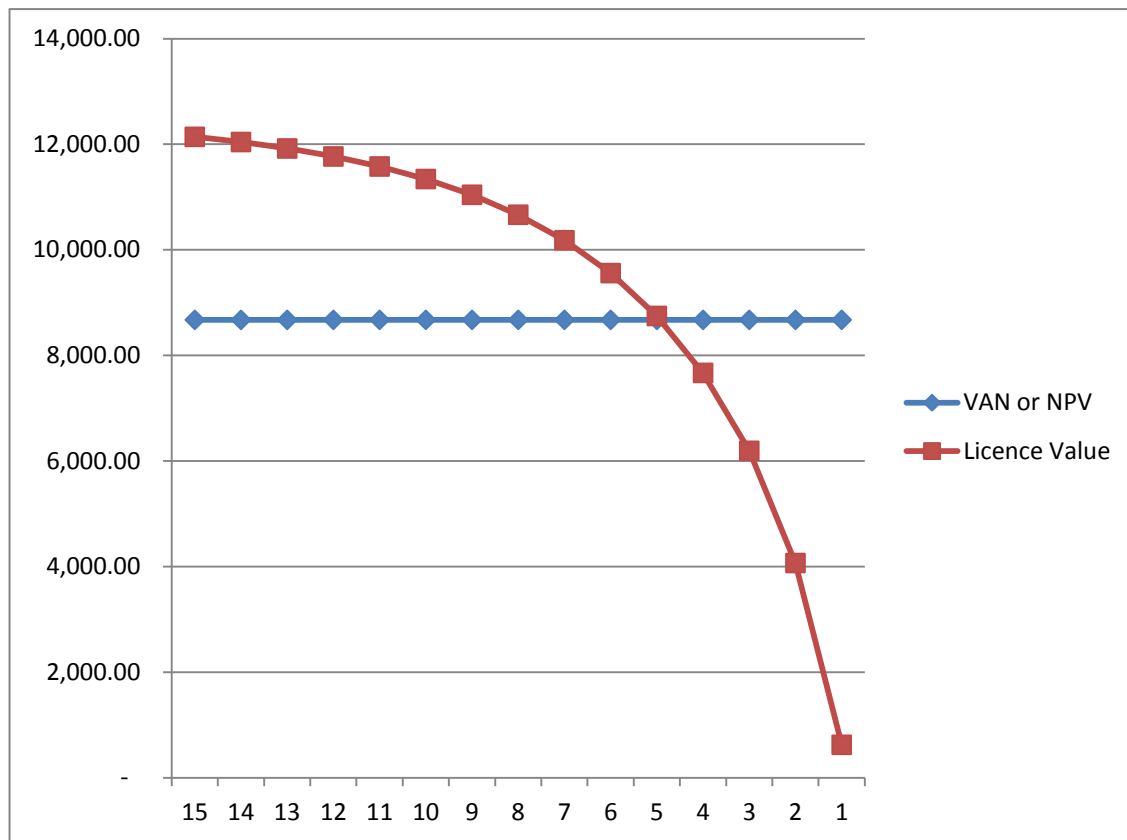


Figure 1: licence trend value

Based on the hypothesis mentioned in the last paragraph, a fixed cash flow during the next 15 years and a fixed investment for the same years, it can be concluded that the next eleven years the project is worth more than the license. Therefore, delay in the start of production, nevertheless face losing the extra profits, which may result in an increase of present value for the project compared to what you could get from an immediate start.

The license value logically decreases from during the years, but it is interesting to observe that the option value become negative in the last years.

In this case considered a fixed cash flow and investment we will have a fixed VAN (Net Present Value), in relation to the hypothesis mentioned in the example.

The option for deferment just analyzed was evaluated as a call written on the cash flows generated by the project and with price equal to the same investment required for the implementation.

In this sense, the management may choose to exercise the option made by the project where the constitutive conditions sufficiently favorable. Or not to exercise the option and in this case to transfer the license to a third party.

## CONCLUSION

In recent years, the method of cash flows has been strongly criticized by those who believe in the approach through real options. The traditional methods of capital budgeting are poorly adapted to the flexibility of certain projects and but the dynamism of the markets characterizing the same.

On the base of literature review, introducing of Real Option Approach (ROA), gone beyond the limits of the Net Present Value (NPV) through the estimation of the various options inherent in a project.

In fact, the NPV assumes a symmetrical distribution of probabilities and a perfect coincidence with the modal value, explained by the lack of managerial flexibility. The real options introduce asymmetries in the probability distribution of the NPV particularly give the management some flexibility in decision-making that results in a greater chance to reap the benefits of positive future scenario .

However, that even the ROA, even today it is the most widely used method for estimating the present case at the high risk potential, begins with the subjective criticisms about litterateurs and new assessment personally goes on with me, by doing this, the reliability of the results to which the latter proofs has been completed.

The assessment and analysis made is not a new experiment, particularly the link operated between chaos theory and performance of the market, which would explain the occurrence of financial crises questioning the harmonious development of the market in the face of reality disharmonious similar to fractals (factors).

In light of the considerations made, it is appropriate to point out that this research is the basis for further studies that will address current trends in the field of structural capital evaluation.

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## EXCITEMENT, SOPHISTICATION AND UNIQUENESS AS DRIVERS TO CONSUMER-LUXURY CAR BRAND RELATIONSHIP

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### ABSTRACT

#### Research Aims

This research aims to contribute to go further in understanding the consumer-luxury car brand relationship. Hence, a model related to luxury car brand meanings and consumer-luxury car brand relationship is proposed and tested.

**Keywords:** Excitement, Sophistication, Uniqueness, Consumer-Brand Relationship, Luxury Cars Brands

### THEORETICAL BACKGROUND AND HYPOTHESES FORMULATION

Product and organization associations represent the information linked to the node in the memory in the consumer's mind (e.g., Keller, 1993; Krishnan, 1996). Several researchers have demonstrated the positive influence of favourable brand associations on attitude towards a new product of a company (e.g., Aaker and Jacobson, 2001) or a positive brand attitude towards existing products (e.g., Low and Lamb, 2000; Van Osselaer and Janiszewski, 2001). In this vein, brand attitude can be viewed as a consumer's overall evaluation of a brand (product and organization). Favourable luxury car brand associations will lead to a positive luxury brand attitude and the following hypothesis is proposed:

**H1:** Luxury car brand associations positively influences attitude towards luxury car brands.

Brand personality has been defined as the set of human or quasi-human characteristics (e.g., Keller, 1998; Petromilli and Michalczyk, 1999) that are associated with a given brand. Aaker (1997) found five dimensions for brand personality: sincerity, excitement, competence, sophistication, and ruggedness. Aaker (1997) evidenced that, whereas sincerity, excitement and competence tap an innate part of human personality, sophistication and ruggedness tap what the individuals' desire but do not necessarily have. As Aaker (1997) also mentioned, sophistication is linked to brands such as Mercedes, Monet and Revlon. Later, Geuens et al. (2009) also developed an alternative brand personality with five dimensions: responsibility, activity, aggressiveness, simplicity, emotionality. The two scales have three very similar dimensions: excitement/activity, sincerity/aggressiveness and competence/responsibility. The last two dimensions represent a more romantic and sentimental

(emotionality) feature and simplicity (ordinary, simple). Regarding Aaker's (1997) perspective, the last two dimensions, sophistication (upper class and charming) and ruggedness (outdoorsy and tough), have been criticized for being based on user profiles instead of human personality structure (Azoulay & Kapferer, 2003; Geuens et al., 2009). The current study follows the conceptualization of Keller (1993) about brand image. Batra et al. (1993) and Davis et al. (2000) noted that brand personality can also be regarded as a component of brand image. Effectively, brand personality, the human or quasi-human characteristics can also build associations in the consumers' minds. Thereby, the following hypotheses are formulated: **H2:** Luxury car brand personality positively influences luxury car brand image; **H3:** Luxury car brand attitude positively influences luxury car brand image.

Customer satisfaction has been studied from two perspectives: transactional and cumulative. The transactional perspective considers that consumers make a judgment of a *specific* service encounter or consumption situation (e.g., Oliver, 1980). In a cumulative perspective, satisfaction is a holistic evaluation of the total purchase and consumption experience with a product over time (e.g., Lewin, 2009; Nam et al., 2011). Following the last perspective, the current study satisfaction measured satisfaction as an overall evaluation of the luxury car brands. Several studies point out satisfaction has a consequence of a favourable customer image or corporate reputation (e.g., Loureiro and Miranda, 2008; Loureiro and Kastenholz, 2011). A positive brand image could contribute to mould the overall satisfaction of a luxury car brand and even increase the confidence towards a luxury car brand.

Trust, commitment and even satisfaction are considered relationship-based constructs (e.g., Garbarino and Johnson, 1999; Sirdeshmukh et al., 2002). Morgan and Hunt (1994, p. 23) define trust as the perception of "confidence in the exchange partner's reliability and integrity". Trust has been considered an important determinant of commitment (e.g., Kingshott and Pecotich, 2007; Loureiro et al., 2012). Therefore, the following hypotheses are presented: **H4:** Luxury car brand image positively influences overall satisfaction; **H5:** Overall satisfaction positively influences trust in luxury car brand; **H6:** Luxury car brand image positively influences trust in luxury car brand; **H7:** Trust in luxury car brand positively influences affective commitment to luxury car brand.

## METHODOLOGY

The car brands considered in this study were firstly BMW, Audi and Mercedes-Benz, but also Lexus, Porsche, Lamborghini, Aston Martin, and Ferrari. The reason for choosing such brands is the fact that these brands are the most representative of the E (executive), F (luxury) and S (sport) car segments according to the European Union (1999). The participants, car owners of such brands, were elements of car brand communities in Portugal and the United Kingdom. We received 368 complete fulfilled questionnaires. The majority of respondents were male (97%), which corresponds to the

male/female ratio existing in these car brand communities. Most respondents were aged between 40 and 60 years old. First, the questionnaire was pre-tested by the managers and some members of the car brand communities, around ten individuals. Thereafter, the members of car online communities (car owners) were invited to participate using an online survey.

## CONCLUSIONS AND IMPLICATIONS

The results clearly point out the importance of associating excitement, sophistication and even uniqueness to the luxury car brands. These associations lead to a more favourable brand image than the direct associations to the product or the organization. In fact, the car's modern design, good performance, concern about customers and professional staff are important features which lead to a favourable attitude of consumers towards the luxury car brand, but this is not enough to create a significant positive image in customers' mind. The findings are in accordance with Batra et al. (1993) and Davis et al. (2000), which noted the potential influence of brand personality on creating a brand image in the consumers' minds. The role of brand personality on brand image seems to be more relevant in the context of luxury cars. Interestingly, more important than design, good performance and positive attitude towards the staff and corporate or car brand, is the encoding in memory nodes of words such as spirited, daring, imaginative, glamorous, charming, special or unique. These are key words that make the owner of the car desire and enjoy driving. The findings lead us to write some managerial implications. Luxury car manufacturers and brand managers should be aware that the magic, mystique and legend associated to the brand are really significant. Innovative design, performance, safety mechanisms, and up-to-date technology are key features, but above all luxury car brands should be able to build up in the consumers the excitement and the feeling that having and using the car is glamorous, charming and unique. Brands with tradition in the luxury market may avail themselves of the mythical images of glamor models and so may also convey to the consumers that the brand evolves without compromising tradition. New brands of luxury cars have to find an element that differentiates them and becomes them unique, through tangible associations (e.g., design, performance, new technology) and intangibles (e.g., create an idea that originates magic, excitement).

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**TITLE: SOCIAL ENTERPRISE MANAGER'S CAREER PATH  
PREFERENCES: FUTURE DIRECTIONS**

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**ABSTRACT**

**Purpose** - this paper explores the career path preferences of third sector social enterprise managers in the UK. The literature suggests that understanding of managers' career path preferences (a variety of trajectories an employee is willing to take inter/intra organisational that fulfils his/her career needs) will provide organisations with the ability to design an effective career path options that will match individual managers' career needs with organisational needs (Petroni, 2000; Vos et al., 2007). However, there is insufficient research that has explored the career path preferences of third sector social enterprise managers. Given this gap in research, this paper seeks to identify whether we can conceptualize third sector social enterprise manager's career path preferences as vertical, horizontal, cross-functional (Petroni, 2000; Vos et al., 2007) or a combination of these types of career paths.

**Design/methodology** - a mixed method research design was employed. A survey and semi-structured interviews were conducted with forty operational managers working in eight social enterprise organisations to ascertain their career path preferences. In addition, eight HR managers working in the same eight organisations were interviewed to provide insight into managerial career path management systems in small social enterprise organisations.

**Originality/value** - The research makes a significant contribution in the field of career paths management in small third sector social enterprise organisations; by identifying career path of operational managers' which are not linked to monetary needs of individual's. This is significant for small social enterprise organisations seeking to retain managers; not through the promise of high salaries and bonuses but instead through proving opportunities that will match manager's career path needs .

**Keywords:** *boundaryless career model, career paths, social enterprise, managers, third sector*

## INTRODUCTION

The DTI (2002:7) described social enterprises as:

‘...businesses with primarily social objectives whose surpluses are principally reinvested for that purpose, in the business or in the community, rather than being driven by the need to maximise profit for the shareholders or owners’.

Social enterprises are at the centre of current political and academic discourse in the UK (Alcock, 2010; Social Enterprise UK, 2011). The government believes that by the third sector adopting a social enterprise ‘business model’, will enable third sector organisations to become involved in commercial activities, either directly or through ‘trading arms’ (for example, charity shops, internet or community cafes) to support their social and environmental aims (Alcock, 2010; Scott and Teasdale, 2010). This will allow the sector’s organisations to be more sustainable and financially independent.

The UK Government’s expansion of the third sector social enterprise policy agenda opened up new funding streams that organisations benefited from such as: Future Builders, Capacity Builders Funds and Adventure Capital Fund. However, government funding to support third sector organisations to become financially independent have been mostly time-limited from the 1990s through to the current Coalition Government policy framework, which reduces public spending to the third sector (Cabinet Office, 2010; Wardle, 2013). This has affected managerial earnings. The average third sector manager earnings is 22.5 per cent lower than a public sector manager earnings and 27.8 per cent lower than a private sector manager earnings ( NVCO, 2013). These factors have contributed to an increase in third sector operational managers’ turnover from 12.8 per cent in 2008 to 14.7 per cent in 2013 (NVCO, 2013). Small social enterprise organisations are seeking ways to develop appropriate and effective strategies to enable them to retain operational managers (Venter and Sung, 2011) and to develop managerial retention strategies that are not linked to pay awards (Coetzee and Schreuder, 2008; Guan et al., 2013).

Operational managers often undertake the management and day-to-day delivery of client services (Maher, 2009; Parry and Kelliher, 2011, Wardle, 2013). Therefore, the loss of a manager impacts on front-line service delivery, service management and the ability of organisations to comply with Quality Care Commission<sup>1</sup> requirements, which form part of the government contractual agreement for third sector social enterprise (drug and alcohol) organisations (Parry and Kelliher, 2009; Mold, 2012).

Operational managers turnover does not only disrupt delivery of client services it can also threaten the timely implementation of newly commissioned services (Nickson et al., 2008; Knight et al., 2011).

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<sup>1</sup> The Care Quality Commission regulates all health and adult care services in England, including those provided by the NHS, local authorities, and the Third sector and Private sector organisations (The Care Commission, 2011). Scotland, Wales and Northern Ireland have a separate arrangement.

Furthermore, managerial turnover is considered as inimical to small social enterprise organisations ; due to its direct costs, such as replacement costs involving advertising the post, administration of the recruitment process and the time spent on new employee inductions; and indirect costs, such as reduced organisational performance level, the loss of organisational knowledge and less success in the adaptation and implementation of evidence based practice for the treatment of clients (Carroll and Rounsaville, 2007; Kim and Lee, 2007; Eby et al., 2011).

Researchers regard turnover that results from individual-level factors (such as, moving house, early retirement) are beyond the organisation's control and can occur in any organisation or sector (Knudsen et al., 2011). Therefore, this research focuses on exploring organisational factors that can be developed by small social enterprise organisations to enable them to reduce managerial turnover. There is evidence (Garavan et al., 2006; Wong, 2007; Rasdi et al., 2009) on ways organisations have reduced managerial turnover in the private and public sectors. These studies found that organisations can reduce managerial turnover by understanding and developing career paths that integrate career path needs of managers to organisational strategy.

The literature review suggests that careers and career paths in the third sector have largely been ignored by research with a few notable exceptions, such as Onyx and Maclean's (1996) study of intrinsic and extrinsic factors influencing the careers of workers in the third sector, Harrow and Mole's (2005) study of third sector chief executives careers and Maher's (2009) study of factors influencing career development in the Not-For-Profit sector. However, there is insufficient research that has explored the career path preferences of third sector social enterprise managers. Given this gap in research, this study provides an original empirical reserach and understanding of career path preferences of social enterprise operational managers.

## OBJECTIVES

The objectives of this research are to explore and identify the career path preferences of small third sector social enterprise operational managers in the UK.

### Research questions:

- What are the career path preferences of small social enterprise operational managers?
- Is there a relationship between small social enterprise operational managers' career needs, organisational factors and their career path preferences?

## LITERATURE REVIEW

### *Public policy*

The literature suggests that numerous public policy since the 1990's, such as, the 1990 National Health Service and Community Care Act in April 1993 and the introduction of competitive tendering process for contracts to third sector organisation's by the Labour Government in 1999, led to increased government regulation of the third sector and has influenced the development of managerial career paths in small third sector organisations (Nickson et al., 2008; Cunningham, 2010). The change in policy framework from grant-aid (funding awarded to third sector organisations to contribute to supporting particular social or environmental aims without specific outcome targets to be achieved); to formal contractual arrangements with specific outcomes targets (Osborne, 1997; Macmillan, 2010; Dickinson et al., 2012). Organisations are required to measure and report on every aspect of treatment outcome they achieve for clients (for instance, how many clients completed their treatment programme, enrolled in education or training) (Osborne; 1997; The Kings Fund, 2011; NVCO, 2012). Operational managers are usually assigned the role of contract management.

In recent years, government contracts are mostly awarded for one year and occasionally for three years and in some cases the funds are abruptly withdrawn if government priorities changes (Nickson et al., 2008; NVCO, 2012). This led to some third sector social enterprise organisations diversifying their funding sources to include other activities such as membership subscriptions, trading subsidiaries (community cafés and training services) and hiring of facilities (Lee, 1993; NVCO, 2011; Dickinson et al., 2012). Small social enterprise organisations that seek to raise funding from other sources have found that funding from these sources are also time limited (Cunningham, 2010; NVCO, 2012), ranging from a few months to a year (NVCO, 2012; Dickinson et al., 2012). This creates further financial uncertainties in these organisations and influences their ability to plan and develop managerial career paths (Cunningham, 2010; The Kings Fund, 2011; Parry and Kelliher, 2011). Next the discussion of boundaryless career model conceptualisation of career paths will help us to explore career paths in organisations.

### *The boundaryless career model*

The boundaryless career model is based on the work DeFillipi and Arthur (1994) and Arthur and Rousseau (1996). They contend that due to changes taking place in the economy and labour market in the 1990s such as, organisations downsizing and de-layering that a career path based on a hierarchical, vertical progression in one organisation is not applicable in most organisations. They posited that career paths are no longer determined by the organisation. Individuals are self-directing and taking responsibility for accumulating and developing marketable skills and competencies in order to determine their career paths within and across organisations during their working life

(DeFillippi and Arthur, 1994; Arthur and Rousseau, 1996). In this regard, the individual acquires information, knowledge and marketable skills that will make it easier for him/her to pursue a career path that is suited to their needs within any organisation (Coetzee and Roythorne-Jacobs, 2007; Dries and Verbruggen, 2012).

The boundaryless career model conceptualises career paths as follows:

i. Vertical: a vertical career path involves upward progression within one organisation or several organisations determined by the individual. The individual accumulates competencies and undertakes training to gain skills within and outside the organisation to enable him/her to pursue a vertical career path suited to their needs as and when the opportunity arises.

ii. Horizontal: a horizontal career path involves side-ways progression to a specific or a specialist job within one or several organisations as the opportunity arises to satisfy his/her career path preferences.

Cross-functional: a cross-functional career path is characterised by an individual preferring to work on short-term cross-cutting projects in an organisation or managing several inter-related projects across organisations as the opportunity arises (Petroni 2000; Vos et al., 2007).

The review of managerial career path studies reveals that managers in the private and public sectors are pursuing career paths as conceptualised by the boundaryless career model (Martin, 2005; Wong, 2007 Cappellen and Janssens, 2010). The findings of this research will be compared with previous managerial career paths studies shown in Figure 1.1.

**Figure 1.1: A sample of managerial career path empirical studies**

Author (s)	Date	Research sample	Research findings
Gunter et al.	2002	A study of career paths of 494 German expatriate managers on international assignments	Boundaryless (vertical and horizontal) career paths within and across organisations
McDonald et al.	2005	A study of senior public sector managers in Australia.	Traditional (vertical) career path within the organisation.
Martin	2005	A study of 49 Australian managers' career trajectories after experiencing major organisational restructuring.	Boundaryless (vertical, horizontal and cross-functional) career paths within and across organisations.
Wong	2007	A study of the career choice of 117 Taiwanese managers' careers in China.	Boundaryless vertical and horizontal career paths within and across organisations.
McCabe and Savery	2007	A study of 126 managers' career paths in the convention and exhibition industry in Australia.	Boundaryless (vertical, horizontal and cross-functional) career paths within and across organisations.
Kim et al.	2009	A study of 34 male career path profiles of general managers of Korean super deluxe hotels.	Traditional (vertical) career path within an organisation.
Cappellen and Janssens	2010	A study of career realities of 45 global managers.	Boundaryless (vertical and Horizontal) career paths within an organisation.

Suutari et al.	2012	A study of global managers career path	Boundaryless (vertical and horizontal) career paths within and across organisations.
Chaudhry	2013	A study of 43 managers' careers in two large multinational companies in Pakistan	Boundaryless (vertical and horizontal) career paths within the organisation.

Source: Compiled by Author.

## METHODOLOGY

A mixed method research design was employed. Semi-structured interviews and a survey was conducted with forty operational managers working in eight (randomly selected) social enterprise organisations in three UK regions to ascertain their career path preferences in the sector. The surveys were assessed on a five-point Likert scale that allowed operational managers to indicate the importance of each of the statements from (1) being “very low importance” to (5) being “very high importance”. The reason for using the five-point Likert scale instead of a single item was due to the author operationally defining measurement of career path preferences as the average of all items relating to each career path. This method is in-line with Allen and Katz’s (1986) and Erdogmus’ (2004) approach in assessing the career path of managers and professionals in the private and public sectors.

The semi-structured interviews provided an opportunity for an in-depth understanding of the operational managers’ interview responses in relation to their reasoning for their different rankings of the career path survey. By this approach, the researcher is using the quantitative data and the explanatory power of qualitative data to provide an original contribution to knowledge and understanding of the career path preferences of operational managers.

In addition, eight HR managers working in the same eight organisations were interviewed to provide insight into managerial career management systems in small social enterprise organisations. The author employed computer-assisted qualitative data analysis software (CAQDAS) package (Bryman and Bell, 2011) Nvivo 9 to facilitate the data coding and clustering of themes.

## FINDINGS

The survey results displayed in Table 1.1 show that operational manager’s career path preferences mean scores. A horizontal career path (4.01) has the highest mean score; a cross-functional career path (3.85) is rated second, while a vertical career path (3.13) is rated third by the operational managers.

Table: 1.1: Operational manager's career path preferences mean scores (N=40)

Career Paths	N	Mean
Horizontal	40	4.01
Cross-functional	40	3.85
Vertical	40	3.13

Source: Compiled by Author

#### *Horizontal career path*

Horizontal career path is the most preferred career path by the operational managers. The evidence suggest that operational managers are undertaking training to improve their skills and competencies; in order to pursue a horizontal career path within their area of specialism in their organisations. This supports Arthur and Rousseau (1996) suggestion that individuals acquire specific skills and knowledge to enable them to pursue the career paths that fulfils their career needs and values. For instance, operational manager 24 and 25 reported:

“The organisation has been pretty supportive offering training and some bursary. I’ve taken time off to do some training I can’t fault them. I have had some training on addiction work and it’s on-going. I have been building up my PDP [Personal Development Plan] yes pretty much; gaining knowledge and skills is on-going in this field. Also because my training is only in addiction, within the field I can complement different modalities. I want to specialise more in this particular area rather than move into say more general management position. My skills are needed here” (Operational manager 24: Counselling manager: Organisation F).

“The organisation has been very good very supportive this is where I want to be. I trained for years to get the Diploma [in counselling] so I want to stay developing the therapy side of things; I’m not interested in going into general management and fund-raising activities. I’ve kept up my PDP [Personal Development Plan]. I’m up to date with my counselling skills” (Operational manager 25: Counselling manager: Organisation F).

Operational manager 24 and 25 evidence clearly suggest that they want to remain as counselling specialists by developing their career paths in their area of specialism rather than into general management roles. These views were supported by organisation F: CEO/HR manager. She reported:

“All our managers are practising counsellors or therapists they are not interested in taking up full-time management posts. I have asked them and they’ve said no to general management. They are happy managing projects with some hands on client work. I have been encouraging managers to attend courses that would extend their project management skills. It always ends



up the same, they nominate to attend a course that is related to enhancing their therapeutic skills or addiction management knowledge ... their choice" (CEO/HR manager F: Organisation F).

The findings suggest that some operational managers stay in an organisation because they prefer a horizontal career path that offers them the opportunity to practice in their area of specialism. Therefore, organisations should recognise that they might not be able to retain some operational managers if they do not offer them opportunities to progress in their career path preferences.

The prevalence of horizontal career path among operational managers reinforces the findings of Chaudhry et al.'s (2012) study of managerial career paths in two multinational companies in Pakistan. However, there were some differences between the findings of this research and Chaudhry et al., (2012) findings. Chaudhry et al., (2012) found that several managers in their sample pursued horizontal career path within one organisation due to limited vertical path promotion opportunities available to indigenous Pakistan managers in the two large multinational companies. The main factors influencing small third sector social enterprise operational managers to pursue a horizontal career path is that, several of the study sample chose to pursue their career path preferences in a specific type of small social enterprise organisation that offers specialist services to a specific type of client group, which happens to be the services that these operational manager's wants to specialise in.

#### *Cross-functional career path*

A Cross-functional career path is the second preferred career path by the operational managers. The research findings suggest that the main factors influencing operational managers to prefer a cross-functional career path; is that it enables them to improve their chances of having continuous employment, in their respective organisations due to the short-term nature of the third sector funding regime (Kings Fund, 2011; Scott and Teasdale, 2012).

Some operational managers that preferred cross-functional career paths; stated that they have only worked across different projects within their organisation in the last three years; due to the organisation's income and funding structure. (Cunningham and James, 2007; The King's' Fund, 2011; Dickinson 2012). This has led to some operational managers preferring to work in a variety of cross-functional projects in order to widen their marketable skills base and knowledge, ready for when the next project comes along. Some operational managers reported:

"The organisation funded some qualification courses that I have been on and other courses. I regularly attend courses and up-date my C.V. With this sector you need to have your skills regularly up-dated if funding is coming to an end on a project that you're working on and another project comes up if you can be fitted into a role there they will fit you in. So you

need to be ready to move across projects according to the funding received” (Operational manager 27: Services manager: Organisation E).

“The organisation provides opportunity for training even with all the changes taking place in this sector which affects our organisation. I have to take training on board. I have to be flexible to go where the work is, where we have funding for a project. I have grown to be strong to be positive in times of uncertainty. I have completed my NVQ [National Vocational Qualification] level three in management. I was leading one project, when we lost funding for that project I had to take on another project. I’m now managing the carer’s advocacy project and the home visiting project. You’ve to adapt. You’re learning all the time. It’s also rewarding working here”(Operational manager 28: Advocacy services manager: Organisation E)

Operational manager 27 and 28 stated that they always seek continuous skills development and training opportunities to enable them to enhance their skills and knowledge so that they can remain employed. Their views were supported by HR manager E evidence. HR manager E reported:

“Employment contracts are based on the funding we get. Most of our contracts are short term as you know. If a particular contract is ending the people working on that contract are moved to a project where we have received funding from another pot of money. So we have more sideways moves and cross-functional moves than upward moves for the reasons that I have described. Managers are move from project to project depending on what funding we have got in. However, we have had some upward moves for instance the CEO [Chief Executive Officer] was promoted from within the organisation. But an upward move does not happen that often” (HR manager E: Organisation E).

HR manager E’s evidence was further supported by HR manager B, who stated that the reasons why small social enterprise organisations predominantly provides cross-functional career path is due to the size of the organisation, funding structure and partnership arrangements with other organisations that are stipulated by some government contractual agreements. He reported:

“It is difficult with a small organisation to look at where managers are going to go. There isn’t much space for upward promotion here. We look at side-ways and multi-project management moves. We are contracted under a particular framework of 'Supporting Peoples Agenda'. If a manager has a particular skill they want to further if we can find a way to make it happen, without breaching our contractual agreements, we will completely explore it. What we cannot do is to provide a service that another organisation is contracted to provide in order to accommodate someone’s career path needs. That will be undermining the agency’s partnership arrangements with other organisations. It is not easy to find the conditions to

fulfil each individual career path needs within an organisation of this size. So managers should be ready to move across to projects where we have funding at any particular time” (HR Manager B: Organisation B).

The evidence demonstrates that short-term funding of small social enterprise organisation’s abilities to develop a variety of career path options that are suited to the desired needs of managerial staff. As a result they offer managerial staff cross-functional career paths opportunities depending on the income and funding received.

The fieldwork finding conforms to Martin (2005), McCabe and Savery (2007) study of career paths of managers in Australia they found that most managers in their samples were pursuing a cross-functional career within their industry. Martin (2005) found that managers in his sample tend to pursue a cross-functional career path when the organisation was restructuring. McCabe and Savery (2009) found that managers in the convention and exhibition industry accumulated a portfolio of technical skills which gave them access to work on cross-functional projects in the industry in order to remain employed (projects in the convention and exhibition industry are often multi-dimensional and time limited). Similarly, third sector social enterprise operational managers that prefer a cross-functional career path were engendered by the need to remain employed in the sector due to short-term nature of third sector income and funded projects.

#### *Vertical career path*

Vertical career path is the third and least preferred career path by the operational managers. The fieldwork evidence suggests that a vertical path is preferred by some operational managers. These operational managers achieved a vertical career path through their own initiatives (identifying their training needs and attending the identified training courses) and organisational initiatives such as internal career advancement opportunities that their employing organisations have provided. They added that most of their qualifications post GCSE and A level education was provided by their organisations. This has enabled them to progress vertically within the organisation’s managerial hierarchy. Operational managers that prefer vertical career path reported:

“I started here as a receptionist. I have gained lots of skills and qualifications through training from this organisation they [the organisation] are very supportive, they are fantastic. When I find training that I needed, I went and presented it [the training course] and they [the organisation] have funded it. When the finance manager’s position came up because the finance manager retired, the director asked me if I would be interested in applying, I said yes. I applied and got the job. The organisation is akin to promoting from within the organisation because the people here already know how things work here” (Participant 1: Finance/development manager: Organisation A).

“The organisation has been fantastic. I started here as a support worker part-time. I was promoted to a co-ordinator and now I’m a team manager. My manager is great he has given me awareness and allowed me to use my initiatives to find training I need. He gave me exposure to things that other manager’s in other organisations would not necessarily get exposed to for example, training in management skills, visiting other projects which has helped me to move to the direction I want to go. Yeah helped me to move up” (Operational manager 11: community Inclusion manager Organisation C).

It is evident that these operational manager’s ability to pursue their career path preferences was made possible by their own efforts and the organisation’s initiatives. Operational manager 1 and 11 stated that without the training and support provided by the organisation; it would not have been possible for them to pursue their career path preferences within the organisation. These views were supported by HR manager C:

“We send managers to training such as, NVQ [National Vocational Qualification] courses which are suited to their role. If a manager has the aspirations to go up [vertical] managerial route and they are prepared to put in the time and effort to achieve that, we [the organisation] would support that. We support them to get there quickly. I will say it comes down to attitude of individuals if they come willing to be successful and fit in with the ethos and culture of the organisation. They will have the support [from the organisation] to help them to develop and progress. My director came through the internal ranks of the organisation, if you show initiatives the organisation will support you to progress where you want to go” (HR manager C: organisation C).

The evidence from HR manager C suggests that some small social enterprise organisations will support operational managers to pursue a vertical career path, if the individuals are committed to progressing through a vertical career path while helping the organisation to meet its objectives. The research finding provides additional support to the findings of previous managerial career paths studies (such as, McDonald et al., 2005; Kim et al., 2009) that found that vertical career path was pursued by managers in their sample.

The fieldwork findings provide important insight into the nature of the career path preferences of small social enterprise operational managers in the UK. Although the findings suggest that the career path preferences of operational managers conform to the career path preferences of managerial staff in the private and public sectors; some contextual third sector factors (such as, short-term funding, organisational size and government contractual agreements with small social enterprises (Scott and Teasdale, 2012) were identified as factors constraining the ability of small social enterprises to provide operational managers with career paths option.

## CONCLUSION

The findings provides evidence that aspects of the boundaryless career model (Arthur and Rousseau, 1996) that conceptualises career paths (as horizontal career path, cross-functional career path and vertical career path within an organisation) were found to be evident as the career path preferences of small social enterprise operational managers.

A horizontal career path within one organisation is the most preferred career by the operational managers followed by cross-functional career path within one organisation. There was little evidence to suggest that operational managers preferring horizontal and cross-functional career paths across organisations. Therefore, the boundaryless career model conceptualisation of horizontal and cross-functional career paths across organisations was not supported by the research evidence.

Operational managers that preferred vertical career paths were able to do so when a position becomes available in their respective organisations. In the case of small social enterprise, vertical career path is not based on sequential ready-made vertical career path progression. It is more relational (a vertical career path progression is made available when funding is received or when someone retires). It is not surprising that a vertical career path is the least preferred career path by several operational managers in this study. Small social enterprise organisations have limited funding and income and as such, they are unable to develop layers of management ready for managerial progression.

Overall, the findings suggest that operational manager's career path preferences in small social enterprise organisations are influenced by the individual's values and career needs and the organisation's ability to provide career path options. The findings suggest that operational managers are not totally independently self-directing their career paths as suggested by the boundaryless career model (Arthur and Rousseau, 1996). This led the author to define social enterprise operational manager's 'career path preference' as:

“an intersection of an individual's led initiatives (training, networking) and opportunities provided by the organisation (training, availability of jobs) to meet the person's desired occupational and career path trajectories” (Original: Maher, 2013).

Small social enterprise organisations need to be aware of the factors that influence operational manager's career path preferences and the positive outcomes (such as, retention, organisational commitment, etc.) that could be achieved when there is a match between operational manager's career motives, career path preferences and organisational needs. This research provides an insight into the contextual factors that shape and constrain operational managers' career path preferences in the third sector. This is significant for small social enterprise managers seeking to retain managers, not through the promise of high salaries and lifelong benefits, but rather through providing opportunities that will enable operational managers to develop projects and have independence in managing these projects.

An additional contribution of the research is that it addresses an important gap in the career path literature by providing a detailed exploration of the career path preferences of the third sector operational managers. The research findings have raised important issues for policy makers and organisations to consider, the future directions of operational managers career path preferences

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## WHAT WINE TOURISTS WANT? A NETNOGRAPHIC ANSWER<sup>1</sup>

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### ABSTRACT

The work aims at examining the online communication started by wine tourists on Web, in order to i) identify topics and subjects around which wine tourists mainly discuss and to ii) profile them, through a netnographic approach.

The originality of the paper can be identified in the application of the research methods still less used in the touristic marketing studies, although through them it is possible to express interesting research hypothesis.

Managerial involvements can be found in the possibility of using the results emerged from the analysis of the user generated contents (UGCs) so as to be able to (re)direct the communicational strategies, developing, at the same time, a targeted and personalized tourist offer.

**Keywords:** *online wine tourism communication, wine tourist netnography, Web 2.0, wine.*

### INTRODUCTION

Wine is a product which can become the cornerstone of online socialization, thanks to its cognitive value, from which emotional and experiential circumstances originate, linked not only to its characteristics, but also to its area of origin (Mattiacci, Ceccotti and De Martino, 2006; Costantinides and Fountain, 2008; Li and Bernhoff, 2008; Vrontis et al., 2011a, b).

Consequently, wine tourism, too (Anholt, 2007; Hall *et al.*, 2000) could show similar features, as it is identified for a different use of the touristic product, characterized by particular needs that often determine the reasons of customization of the tourist offer; in such context, indeed, peculiar needs (related to the knowledge of the specific area, culture, traditions and life style) prevail and extend the usual wine world field *strictly speaking* (Mitchell *et al.*, 2000).

For the above-mentioned reasons, the role of *web communication* in this particular field seems to be significant but, at the same time, complex, as it requires targeted *web marketing* actions (Buhalis and Wagner, 2013); for enotouristic destinations the on-going digital revolution, indeed, can represent a

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<sup>1</sup> The current paper has to be considered as a preliminary phase of the research project called "The Apulian tourisms: analysis of the competitiveness of the Apulian territories" (original title: "I turismi di Puglia: Analisi della competitività dei territori pugliesi"), commissioned by Puglia Promozione, the Destination Management Organisation (DMO) of the Apulia Region.

big opportunity because the user generated contents (so-called UGCs; Wunsch-Vincent and Vickery, 2007) are valuable information in order to develop a customized, targeted communication which can allow a better *customer experience* and a far more incisive interaction (Sigala, 2012; Kujala, 2003).

## NETNOGRAPHY: A BRIEF REVIEW

The paper, which is part of a wider field of research, is included in the studies connected to *web communication*, then trying to contextualize them in the field of such a specific sector as wine tourism. In this sense, it is possible to talk about *consumer-to-business* or *reverse marketing* due to the contribution that the tourist can give to the co-creation of many attributes of *product-offering* or other elements of *marketing mix* (Neuhofer *et al.*, 2013; Prebensen and Foss, 2011; Tapscott, 2009; Zwick *et al.*, 2008; Prahalad and Ramaswamy, 2004), in a perspective of *digital prosumerism* (Ritzer and Jurgenson, 2010).

It is thus particularly significant to try and outline the different typologies of web users on the basis of the different conversations and of the mostly discussed *topics* by such groups of Internet users; for this purpose the netnographic analysis may be used as a support (Kozinets, 2002).

Netnography develops as a branch of ethnography and cultural anthropology, applied to the Web; such technique is based on the body of contents from online sources, in which the topic under consideration as well as the subsequent interpretation of data are discussed (Kumar *et al.*, 2013; Wu and Pearce, 2013; Ismail, 2010; Reynolds, 2010; Quinton and Harridge-March, 2010; Xiang and Gretzel, 2010; Puri, 2007; Dalli and Corciolani, 2007). As the textual contents (in their scientific-cultural dimension of social interaction) are more and more common on the Web, in the latest years there has been a sharp increase of studies and researches – especially in the sociological field – based on netnography, defined as “ethnography adapted to the complexity of contemporary social world”, in other words as a method that can provide a privileged access to the comprehension of “life in the age of technologically mediated culture” (Kozinets, 2010).

The netnographic approach used in the present paper is based on the direct observation of the virtual community through the analysis – without a direct participation – of the conversations realized on the communities examined (De Valck *et al.*, 2009; Cova and Pace, 2007).

## OBJECTIVES AND METHODOLOGY

Considering the importance of a permanent activity of examination/monitoring the *consumer-generated media*, the current paper starts from the follow research hypothesis:

*The topics around which enotourists' discussions revolve can offer useful advices for the business organization, in order to profile the wine tourists, so as to formulate a personalized and effective communication strategy.*

So, the research question is:

*What are the main discussion topics on blogs, forums and communities? In other words, what are the most requested information by wine tourists and upon which they mainly discuss?*

Based on previous study (Fait *et al.*, 2014, Maizza *et al.*, 2014, Scorrano *et al.*, 2013), the following wine tourism destinations, considered of excellence by wine tourists, have been examined: Napa Valley, California, Bordeaux, France, Tuscany and Italy.

Then, a research on *Google.com* has been carried on (on December 2013), using the above-mentioned keywords (*wine tourism*, combined with each *destination name*): for such analysis, the results connected to the first three pages of the *search tool "Discussion"* have been examined. In this way, it has been possible to identify blogs, forum and communities about which wine tourists talk about the topic under consideration, discuss, exchange information and express opinions and/or decisions.

Such subjects have been re-elaborated, according to the *text mining* method – which allows, through the automatic extracting of information from a usually huge amount of different unstructured textual resources, to discover previously unknown information using computers (Witten, 2005) –, in order to emphasize the most recurring *topics* and the most sought-after topics/data by wine tourism lovers, with a double final purpose:

- pointing out the subjects around which these users mostly discuss, as well as verify if the data searched by users are (easily) available also on the business website of the related *wine destination*;
- comparing the results, diversifying them for wine-destinations, with the aim of realizing a netnography (defined by Kozinets as: “a new qualitative research methodology that adapts ethnographic research techniques to the study of cultures and communities emerging through computer-mediated communication” Kozinets, 2002) that allows to outline the characteristics and possible peculiarities of the different *wine tourists*, in relation to the mostly treated subjects.

## THE NETNOGRAPHY ON WINE TOURIST CONTENTS

The *Discussion search tool of Google.com* has been used here. It reports as results only blogs, forums and communities on which the discussion is about the examined *wine destinations* (used as *keywords* for the research); from the results obtained, only the first three pages have been considered. From each of them the text of the title or of the given question has been taken, as well as all the comments/replies, except for those related to groups created on Google (*www.groups.google.com*), for which the registration to the community was necessary; in this way, it has been possible to assemble the contents of 25 online platforms for each enotouristic destination, each of which, provided, on the average, about twenty comments among *wine tourism* lovers. On the whole for each of the 6

destinations it has been analysed: 25 platforms, each containing at least 20 comments (in order to emphasize the overall numerosity of the analysed comments, it must be taken into consideration that the overall text analysed by the T-Lab software is equal to 1.000 pages in .doc format).

The textual content of the *online discussions*, identified employing the above-mentioned methodology, has been analysed through the text mining approach re-elaborating:

- 7.894 elementary contexts (cf. box),
- 19.592 forms,
- 16.291 terms (cf. box),

for a total amount of 308.675 occurrences, considering a threshold equal to 6.

The elementary contexts can be of four types: 1. *Phrases*, that is elementary contexts identified by strong punctuation (.?!), with minimum length of 1.000 characters; 2. *Fragments*, obtained through a segmentation algorithm that considers as elementary context every word sequence interrupted by a new paragraph (line break) and whose size is less than 400 characters; 3. *Paragraphs*, that is elementary contexts identified by strong punctuation (.?!), and by line break, with maximum length of 2000 characters; 4. *Short texts*, if the corpus is made up of texts with maximum size of 2000 characters (e.g. answers to open questions).

The T-Lab software, for all the lexical units of the corpus, reports two pieces of information: the first, called *form*, contains the transcription of lexical units (single words or multiword) as strings recognized by the software; the second, that is the *word*, contains the labels in which the lexical units have been grouped and classified during the phase of automatic lemmatisation.

From a first analysis, it is possible to notice that UGCs revolve mainly around the word “wine”, which records a number of occurrences equal to 3.376 (Such value of occurrence related to the term “wine” is higher to the element observed on wine destination websites; this is to be ascribed also to the greater sizes of the contents of discussions as compared to the former); after such climax, the most used keywords are those characterizing the ‘experience’ (323) of enotouristic journey, in the strict meaning of journey: “winery” (1.356), “tour” (1.203), “visit” (1.036), “taste” (815), “tourism” (489), “travel” (422), “vineyard” (371). Taking into account, instead, the evaluative aspect of the same experience, the words frequently used by enotourists turn out to be: “great” (619), “love” (308), “enjoy” (273), “beautiful” (228), “fun” (155), “wonderful” (145), “easy” (139), “amaze” (121).

In fact, although the *discussions* are linked by the same thread (the interest towards areas suitable for productions of high-quality wine), the macro online discussion among wine tourist can be led back to two typologies of “*suggestion*”:

- *expert*: favouring the aspects linked to wine-cellar and vineyards to visit, to the produced wines and their characteristics, to tastings and the most important events organized on the area;
- *funny*: linked to complementary aspects of the places taken into consideration; the landscape, culture, history are emphasized as well as the gastronomic specialities, the traditions and the possible activities to be done during the holiday.

Anyway it is important to highlight that the names of *wine destinations* analysed recur in the text in the following order: “Italy” (684), “Napa” (521), “France” (353), “Tuscany” (336), “Bordeaux” (333) e “California” (192). These numerical values suggests two considerations:

- the first two destinations are those that can generate greater contents, thus obtaining a high number of posts;
- there are discussions and exchange of information about these main wine destinations not only when the post concerns directly or not the destination; for example, there usually recurs a reference to Italy when an opinion and/or a suggestion related to Tuscany is then extended and enriched with information regarding the whole country; moreover Italy appears in *discussions* concerning France, very often in order to make a comparison, that is to underline the peculiarities of each or emphasize the similarities.

This is also confirmed by a further in-depth analysis conducted through the *Analysis of Correspondences* (cfr. Fig. 1), allowing to agglomerate the dispersion of data in a reduced space, thus explaining the polarization of variables and terms by the axis of a Cartesian graph (the axes of the graph correspond to the *factors*, that is to variables created ex novo explaining the different oppositions between the poles of factors. Factorial polarity, that is the opposition on the horizontal and vertical axes of the graph, is determined by the Test Value; this index has a threshold value equal to 1,96, that is equal to the most common statistical significance (p. 0,05), and a positive or negative mark).

With the help of this instrument it has been possible to summarize the information traceable on blogs, forums and communities in a bi-dimensional space. The relations between the context units in terms of proximity-distance (similarity-difference) have been analysed, in order to identify the behaviour of the different wine tourists, in relation to the destinations under consideration.

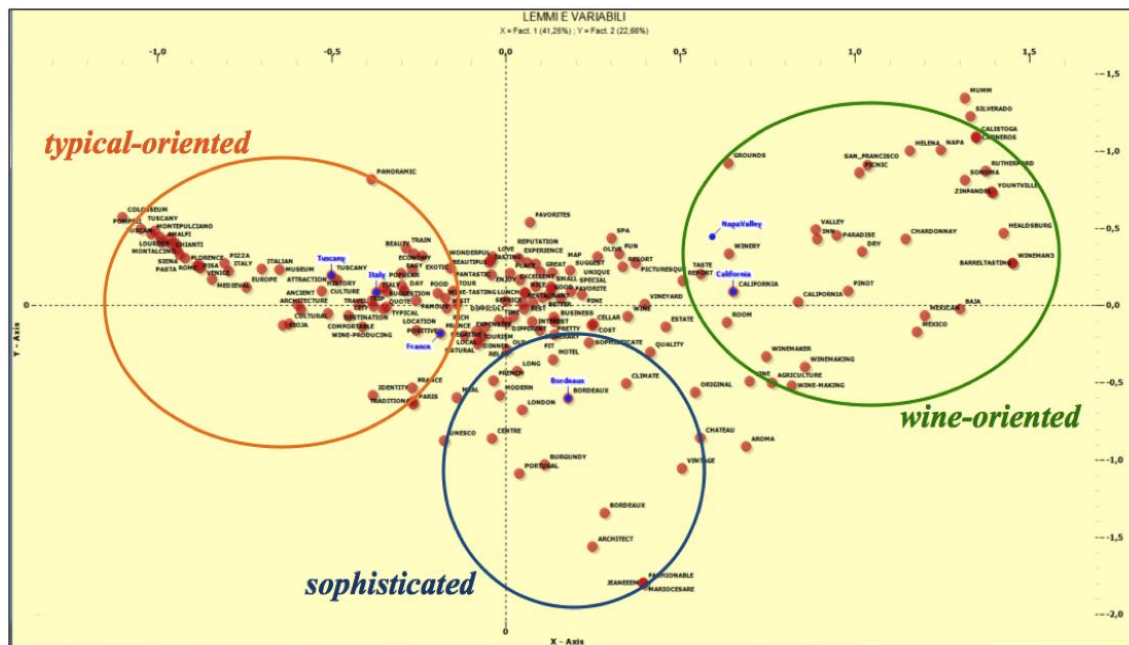


Figure 1: Analysis of Correspondences on the textual content of blogs, forums and communities and wine tourist netnography

From the interpretation of the graphic representation it is possible to classify, according to the netnographic approach, three main typologies of enotourists (the name given to the different groups comes from the interests noticed in the discussions observed):

- *sophisticated*: that is those who privilege the “fashionable” aspect of the site, who exchange views on which is the best “chateau” to visit or the best “vintage” offered by “wineries” during the tastings; with accurate precision, many suggestions concerns not only the technical characteristics of local productions, but also the price (<<A red Bordeaux wine needs at least 10 years to mature. A young red Bordeaux, even when it comes from a grand chateau, is just bland and full of tannins. The complex fruit and mineral aromas need time to develop>>; <<More recent vintages range in price from \$29 a bottle for the 2002 all the way up to \$83 for the 1999>>). The most frequent items are at a significant semantic proximity with the contents related to Bordeaux variable;
- *wine-oriented*: formed by enotourists that on the Web mostly discuss about Napa Valley and California; the information related to these two enodestinatons are linked to the *wine-world* itself. They often discuss about people involved in the production chain; they talk about the best wines – very often emphasized with superlative adjectives –, the wine-cellar, the vineyards to visit and the importance of learning aspects linked to the growing and production during these tours (<<Always a better experience doing the small production wineries, IMO. Meeting the owners and winemakers is so special! >>; <<The Syrah is slap-your-mama fantastic, and I could bathe in the Zinfandel and Cabernet. Even the Chardonnay is superb. None of Chris’ wines overpower you with alcohol, yet they’re all big, robust wines, including the white. You can actually

*taste the grapes, the soil, the rocks, the wine. You HAVE to stop in here and buy a bottle or two. He'll take you out amongst the grapes for an agriculture lesson if you ask him to. He's always great about educating his customers. We're headed out there for Memorial Day week, and I can't wait. Can you tell I'm a big fan?>>; << The wines were quite good, and we really got a good education in wine country agriculture and wine making.>> ).*

- *typical-oriented: wine tourists talking about Italy, Tuscany and France; on the Web they analyse cultural and architectonic aspects of these places, emphasizing history and traditions, as well as "food" and typical products. Tracing back their tours, they suggest in a detailed way the activities to do, the monuments to visit, how to buy the tickets for the museums and how to reach the most interesting towns (<<You'll have a wonderful time discovering the area you stay in - shopping for local products, eating good food, drinking good wine (it is hard to eat badly in Tuscany, most "trattoria" have extensive wine lists just like the restaurants do) and most of all taking part of your nephew's wedding in such a beautiful context as Tuscany!!>>).*

Besides the observed clusters, there are also terms located around the centroid of the bi-dimensional space examined, that have proximity relations, from the lexical point of view, with all the enotouristic destinations under consideration. From the observation of these words, that are common to all the different destinations observed, a quite positive *sentiment* emerges by enotourists: as you can see from the previous graph (cfr. Fig. 1), the *tour experience* in the wine destinations is usually identified by lexical units, such as: "good", "favourite", "enjoy", "excellent", "great", "nice", "beautiful", "wonderful", "interest", "pretty".

It is useful to consider, at last, the presence, even if very reduced in number (only three), of negative adjectives; it is interesting to underline that lexical unities such as "negative", "not good", "expensive" do not qualify the products and/or the areas closely linked to the wine destinations under consideration, but are usually linked to the purchase of extra-services (water taxi, lunch, gift): <<From the cruise port you can choose three different means of water transport; most expensive is a private water taxi.>>, <<My favourite place in Italy is the island of Capri, but boy is it ever expensive! Me and my partner paid £30.00 for burger and chips each and one small beer each, and that was back in 2007!>>.

## CONCLUSIONS

The present paper has originated from the hypothesis of research below (and the related questions):

*The topics around which the discussions of enotourists revolve can provide useful suggestion to the web marketing decisions, in order to allow the identification of wine tourists, so as to formulate a personalized and effective communication strategy.*

Carrying on with the survey, it has been possible to outline the characteristics of the “new wine tourist”, well informed, who wants to choose its destination according to its interests and also to plan its free time, and becomes, at the same time, a ‘*spokesperson*’ of its own travel experiences in order to provide useful suggestions to the community members.

The analysis thus conducted has allowed, through the formulation of answers to the research questions, to confirm the hypothesis from where the work started and emphasize the need of a greater dynamism of the enterprises in order to preserve and/or improve its own competitive positioning; the monitoring of the online conversations, in fact, is an opportunity for wine destinations in order to identify the customers’ *feedback*, gaining knowledge related to their tourist experience and enrich the contents of the offered products.

The limit of the present study, mainly linked to the needs of synthesis of the present contribution, can be attributed to the netnographic approach used; it belongs to the *observative* kind and so, it didn’t provide any interaction with *wine tourists*.

It is considered interesting to further develop the netnographic analysis, favouring a participative approach, through the administration of questions addressed to enotourists, with the aim to investigate their perceptions in reference to the wine destinations observed and possibly increase the study sample. Also, it is considered interesting to compare the UGCs and the enotouristic destinations website contents (through the text mining approach) with the aim to evaluate the coherence or incongruence between the communication elements of each online content maker (wine tourist destination and tourist).

The research conducted can, in that sense, have managerial consequences in terms of definition of an integrated, tourist offer, targeted thanks to the analysis of “*virtual discussion room*” around the enterprise. These communicative platforms, in fact, offer significant informational opportunities useful to the planning of a personalized, valuable offer for the customer; they also allow to become acquainted with the perceptions of users, thus the *brand image* that is spread online thanks to the speed of diffusion that characterizes the communication and the *online word of mouth*.

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## ATTRIBUTES DRIVING THE WINE CHOICE PROCESS

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### ABSTRACT

*Research Background:* Wine businesses operate in an increasingly harsh and globalized competitive environment, characterized by shifting consumer behavioural trends, the rise of new players (Third World Countries, Banks and Overton, 2010) and unpredictability. They are thus obliged to strive for 'strategic transcendence', through holistic re-evaluation, redefinition and redevelopment of all their functional and marketing processes.

*Research Aims:* This paper analyzes attributes of the wine purchasing process and assesses, from a consumer-oriented perspective, their value as determinants of marketing strategy.

*Research Methodology:* Extensive theoretical research was conducted into various aspects of wine consumer purchasing behaviour. Subsequently, an empirical survey was performed, and the gathered data was processed with both descriptive and multivariate statistical techniques. The empirical research evaluated the theoretically identified variables in the context of the new competitive conditions that characterize the wine sector today.

*Research Findings:* The research identified five 'macro-themes' associated with the perception of the generic product 'wine': 'Relationship between territory and wine', 'Wine Identity card', 'Experiential identity of the wine', 'Information in support of the purchase process', and 'Price'.

*Research Value:* The research identified trends which, properly interpreted, add to our understanding of consumer behaviour and offer valuable guidance for the development and implementation of corresponding strategies (primarily concerned with marketing and branding) in the wine sector.

**Keywords:** *Wine, Consumer, Country of Origin, Marketing, Branding*

### INTRODUCTION

Wine producers and sellers across the globe are operating in a challenging business context which is becoming increasingly harsh for all business-end stakeholders. Much like their counterparts in so many other industries (Thrassou, 2007), wine businesses are being forced into a competitive arena characterized by: a) globalization; b) shifting consumer behavioural trends; c) fluctuating and unpredictable macro-environmental business conditions; d) evolutionary restructuring and

repositioning of all production, distribution, sales and marketing aspects of the product (Rossi et al., 2012).

A key feature of the international wine-making sector today is the coexistence of various contexts of production and consumption. The traditional dichotomy (Campbell and Guibert, 2006) of wine producers that are the expression of an area and of the vine-grower's experience (Old World: Italy, France, Spain, Germany and the UK), and production areas oriented to the achievement of a homogeneous product, no longer associated with a precise area of origin (New World: California, Australia, Argentina, New Zealand) is currently evolving rapidly. Key new players are emerging in the context of both production and consumption.

In the light of the above, this research analyzes attributes of the wine purchasing process in an effort to determine, from a consumer-oriented perspective, their impact on the development of marketing strategies. To this end, theoretical research into various aspects of wine purchasing was conducted. Subsequently, an empirical survey was performed to identify the 'macro-themes' underlying the process by which the consumer's choice of 'wine' product is made.

Aware of the increasing need to translate academic findings into industrial applications, the research concludes by presenting the managerial implications of the findings.

## THEORETICAL CONTEXT AND DEVELOPMENT OF THE HYPOTHESIS

### *A consumer-oriented approach to the wine market*

In the current competitive context, knowledge of cognitive and behavioural elements that facilitate the perception of the product's *value proposition* – and thus characterize the purchase process (Mowen, 1995; Thrassou et al. 2012) – is becoming increasingly important in terms of generating value for the customer (Wayland, Cole, 1997). In the above context therefore, this paper adopts a *consumer-oriented* approach, and considers the emotional, cognitive and behavioural dimensions of the purchasing process to be fundamental (Holbrook and Hirschman 1982; Schmitt, 2003; Vrontis et al., 2011a, b).

The starting point for this research was thus a review of the business literature with a view to *identifying the attributes and variables that determine the purchase of wine*. A case-by-case discussion of each of the works analysed is not possible here, but in terms of the theoretical part of this research, two broad categories of variable were identified: a) attributes/benefits strictly linked to the wine itself; b) attributes/benefits arising from the association between the wine and its place of origin (Table 1).

Dimensions	Unit of analysis	Authors
<b>Attributes/ benefits strictly linked to wine</b>	organoleptic properties, grape variety, method of production	Golan and Shalit, 1994; Schamel, 2006.
	price, information on the label, in guides and on the internet	Koewn and Casey, 1995; Chaney, 2000; Scorrano 2011.
	destination brand of the producer and the producer's reputation/identifiability	Gil and Sánchez, 1997; Quester and Smart, 1998; Jarvis et al., 2003; Vrontis et al., 2011a.
	reputation/identifiability of designation (country, region) of origin	Skuras and Vakrou, 2002; Martínez-Carrasco et al., 2006; Vrontis et al., 2011a, b.
<b>Attributes/b enefits arising from the association between the wine and its place of origin</b>	historical, symbolic and environmental elements of the area	Tragear et al., 1998; Maizza and Rosato, 2008; Fait, 2010; Vrontis and Thrassou, 2011.
	origin as the main tool for identifying the wine product and its related quality	Bilkey and Nes, 1982; Al-Sulaiti and Baker, 1998; Vrontis et al., 2006.
	consistency of the product with the image of the region of origin	Van Ittersum et al., 2003; Fait, 2012; Rossi et al. 2012.
	hedonistic, aesthetic and high-profile qualities of the wine product, linked to the "made in" effect	Bloch, 1986; Charters and Pettigrew, 2006; Vrontis and Thrassou, 2007.

Table 1: Review of literature in the wine market

In accordance with the literature (Olson and Jacoby, 1972; Steenkamp, 1989; Oude Ophius, Van Trijip, 1995; Bernués et al, 2003a, 2003b), which cites the distinction between *intrinsic attributes* (organoleptic properties and physical characteristics of the product) and *extrinsic attributes* (price, brand, reputation, image, advertising), this study considered *Organoleptic Properties, Production Methods, Bouquet and Taste* in reference to the former, and *References, Packaging, Price, Information found in guides and on the label, Wine tasting, Educational Tours, Cellar door sales, information available on the internet, Reputation of producer, and Reputation of designation of origin* in reference to the latter.

In addition, in accordance with those authors who stress the association between the wine and its place of origin (Bilkey and Nes 1982; Al-Sulaiti and Baker 1998, Tragear et al., 1998; Van Ittersum et al. 2003) and give prominence to the wine's hedonistic and **aesthetic** properties, linked to the "made in" effect (Bloch, 1986; Goldsmith and d'Hauteville, 1998; Charters and Pettigrew, 2006), this paper considered the following elements: *Artistic/Cultural Resources, Natural resources, Land and Wine events,*

*Wine routes, Land information in brochures and Destination brands that identify the specific wine* (e.g. Napa Valley, Tuscany, Bordeaux).

#### *Research hypothesis*

The paper adopts the subdivision into “old” wine regions (Italy, France, Spain, Germany and the UK), “new” regions (Australia, the California (USA), Argentina, New Zealand) and “third” regions (Brazil, India, China, Russia and Romania). Based on the findings of the above-cited literature (both general and, more importantly, specific to wine-making), it is argued here that *some of the theoretically identified attributes act as behavioural guidelines*, influencing the consumer’s choice of wine product.

Methodologically, the research was therefore designed and executed specifically to test the above hypothesis and guarantee the reliability and validity of the results.

## **EMPIRICAL RESEARCH METHODOLOGY**

### *Sampling*

Regarding the context of analysis and sampling, this study chose to focus on wine buyers due to their technical knowledge, creativity and ability to identify the market of reference and related trends (Kotler et al., 2012). The sample was selected from an international buyers database (*Bestwineimporters*<sup>1</sup>) listing (a) importers from the top 10 wine-producing countries (Argentina, Australia, China, Chile, France, Germany, Italy, South Africa, Spain, the USA/California) and (b) importers to the top 10 wine consumer countries (Argentina, China, France, Italy, Germany, Romania, Russia, Spain, the UK, the USA)<sup>2</sup>.

Initially the sample population was composed of subjects from the following countries: France (120), Italy (113), Germany (850), the UK (542), Spain (85), the USA/California (1130), Argentina (38), Australia (106), New Zealand (53), China (47), South Africa (33), India (36), Russia, (65), Romania (39), Brazil (110).

The sample was then revised on the basis of: a) buyer website assessment (deemed methodologically necessary as contact with buyers was by Facebook, e-mail or filling in “contact us” fields in the period May-November 2013); and b) the buyers’ level of specialization, so as to include only those who trade in wine.

Since this was exploratory research conducted on a selected sample, the *convenience sampling* technique was applied and a total of 315 properly completed, valid questionnaires were collected, considered and analyzed (28 from the UK, 14 from France, 31 from Germany, 8 from Spain, 21 from

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<sup>1</sup> For further information, see <http://www.bestwineimporters.com/it/index.html>

<sup>2</sup> The lists of countries are from the OIV Report 2012

Italy, 35 from the USA, 25 from Argentina, 25 from Australia, 26 from New Zealand, 20 from South Africa, 22 from Brazil, 20 from India, 20 from China, 12 from Russia, 8 from Romania).

#### *Questionnaire development and analysis*

A semi-structured questionnaire was constructed with the aim of identifying and understanding perceptions of specific determinants of purchasing behaviour, and a pilot test was conducted.

For quantitative measurements, a five-point scale was used (5 = greatest importance, 1 = least importance). A validation test was also conducted by sending the first version of the questionnaire to 20 buyers working in 4 different geographical areas.

Data were analysed using SPSS software (Statistical Package for Social Science), with the gathered data being processed by descriptive and multivariate techniques. *Factor analysis* was used to test the research hypothesis.

## RESULTS AND FINDINGS

#### *Attributes guiding the consumer choice process*

The first step of the research allowed the identification of 'macro-themes' influencing the consumer's choice of 'wine' product on an international scale. The research sought to verify whether this process is indiscriminately structured, or whether certain groups of variables play a greater role than others, so as to identify possible guidelines for consumer-oriented marketing strategies. To this end, and to highlight the existence of a structure underlying the set of observed variables, *Factor Analysis* (appropriate for the explorative nature of the research) was applied.

The results of the KMO test (0.867, i.e. > 0.7) and Bartlett's test were indicative of a correlation between the variables (p-value > 0.05), confirming the suitability of factor analysis. The analysis extracted five elements that explain 68.025% of variance (values of 60-70% being considered acceptable in terms of the informational function)<sup>1</sup>.

The data were interpreted by means of the rotated component matrix (Table 2), in which the variables are associated with the components with which they show the highest correlation.

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<sup>1</sup> The five identified components all have high values and summarize the information contained in the original data matrix. This is confirmed by the scree plot and the communalities (not shown here due to lack of space).

	Component				
	<i>Relationship between territory and wine</i>	<i>Wine Identity card.</i>	<i>Experiential identity of the wine</i>	<i>Information in support of the purchase process</i>	<i>Price</i>
Artistic and Cultural Resources	0.715				
Natural resources	0.689				
Land and Wine events	0.826				
Wine routes	0.788				
Land information in brochures	0.759				
Destination brand identifying the specific wine	0.668				
Organoleptic Properties		0.834			
Production Method		0.658			
Bouquet		0.865			
Taste		0.870			
Reputation of producer		0.525			
Reputation of Designation of Origin		0.598			
Educational Tour			0.773		
Cellar door sale			0.828		
Information on the internet			0.574		
References				0.786	
Information in guides and on the label				0.535	
Packaging				0.831	
Price					0.854

Notes:

Extraction method: principal components analysis.

Rotation method: Varimax with Kaiser normalization.

The rotation met the convergence criteria in 7 iterations.

Table 2: Rotated component matrix

The first component, which we call ‘*Relationship between territory and wine*’, is characterized by the high correlation of variables indicative of the external visibility of this relationship (Artistic and Cultural Resources, Natural resources, Land and Wine events, Wine routes, Land information in brochures, Destination brand identifying the specific wine), and the perception of this relationship as a means to increase the value of the wine product. This confirms that the consistency between the product and the image of its region of origin, frequently cited in the literature, is a key element of a wine’s value.

The second component, which we call ‘*Wine identity card*’ relates to the wine itself, in the sense that it includes variables arising from its intrinsic features (Organoleptic Properties, Production Method,



Bouquet, Taste) and the 'reputation' variable (Reputation of producer, Reputation of the Designation of Origin).

The third component, '*Experiential identity of wine*', corresponds to the consumer's need to 'explore' the wine, by means of a flow of information that is not linked to strictly oenological factors, but rather to experiential elements. The variables included here indicate a consumers' need to know/understand the wine's context through direct/experiential contact (Educational Tours, Cellar door sales) or via social communication tools (information on the internet, particularly blogs and social networks).

The fourth component, termed '*Information in support of the purchase process*', is characterized by the correlation between three variables (References, Packaging, Information in the guides and on the label), indicative of a need for information in support of the purchase process, guaranteed by the numerous references, the packaging and the information included on the label (e.g. grape variety, alcohol by volume, place of production, etc.) and in the guides (tasting scores, competitions, matching, etc.).

The last component, '*Price*', is fundamentally linked to economic evaluation at the time of purchase.

## CONCLUSIONS AND MANAGERIAL IMPLICATIONS

The managerial literature, particularly of an empirical nature, has analyzed the process of consumer wine purchasing with regard to one or a small number of attributes. In contrast this paper considered attributes and variables identified by the literature but suggested a multi-dimensional vision of the process. Specifically it sought to understand whether this process is indiscriminately structured or whether certain groups of variables play a greater role than others in the process.

Due to the reduced representativeness of the statistical sampling, this research cannot thoroughly outline consumer behavioural trends in the international context. However, it may be said to have a) identified trends which, properly interpreted, add to our understanding of consumer behaviour and offer valuable guidance for the development and implementation of marketing and other strategies in the wine business sector; b) analyzed the attributes of the wine purchase process with regard to new players who are taking on a significant role in the production context as well as in wine consumption. Specifically, *Factor analysis* revealed that:

1) The wine product can be analyzed multi-dimensionally in the context of international consumer behaviour. The wine product is diachronically permeated by its tangible attributes, which are relatively explicit and relate to taste, bouquet, colour and all the other characteristics that contribute to the knowledgeable consumers' conscious evaluation of the wine's 'tangible' qualities. Commercial success however is also very much a matter of marketing factors, relating to parameters such as price, brand recognition, accessibility, promotion, etc.

The research however, also indicated a less tangible aspect of wine identity that consciously or subconsciously affects consumers' perception of the product, and consequently their preferences and choices. Typically, and of special interest to this research, this aspect relates to the wine's country-of-origin.

2) The international wine market is characterised by five 'macro-themes' underpinning the perception of the general 'wine' product: 'Relationship between territory and wine', 'Wine identity card', 'Experiential identity of the wine', 'Information in support of the purchase process', and 'Price'. From a consumer-oriented perspective then, the previous considerations can be interpreted as guidelines which modulate a *value proposition* in accordance with the consumers' attitudes. They are linked to the following marketing concepts:

- The *Wine Identity card* component is linked to the *product experience* dimension, i.e. the consumer's interaction with the product or the brand;
- The *Price* and *Information in support of the purchase process* components correspond to the *shopping and service experience* dimension, concerning consumer-store interaction (whether physical or virtual) (Maizza et al., 2013);
- The *Experiential identity of the wine* and *Relationship between territory and wine* components correspond to the hedonistic-experiential dimension of the *consumption experience*.

In conclusion, wine is perceived as a product giving physical enjoyment, but also increasingly as a means of association with the cultural and lifestyle connotations of the wine's place of origin. The combination of the two constitutes what we might call the 'wine experience'. Wine producers and sellers must develop both aspects of the product, in terms of both physical production and marketing practices. Today, as a consumer choice and a commercial activity, wine is no ordinary product, and its production and branding in those new countries which are now beginning to play a significant role in both production and consumption must take account of this.

This paper represents the first step in a wider research programme that will seek to determine whether there are:

- groupings of countries showing homogeneities or shared characteristics in the choice process;
- specific features that distinguish wine products in the perception process of new international players.

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# INVESTIGATING THE STAGES AND THE ROLE OF THE BUYING EXPERIENCE IN THE IN THE BUYING PROCESS OF CRAFT RETAILERS IN SOUTH AFRICA

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## ABSTRACT

Craft retailers play a dominant role in the craft industry value chain yet craft producers face difficulties selling to this market. Instead they resort to selling directly to end consumers and not through craft retailers. An understanding of craft retailer buyer behavior is a necessity for craft producers who want to sell their products successfully through the craft retailers. The purpose of this study was to investigate the buyer behavior craft retailers exhibit when buying from the craft producers. Survey was conducted among 233 craft retailers in SA. A convenience sampling method was adopted for the study. The findings revealed that craft retailers go through homogenous buying stages. The stages in the buying process did not differ across different types of craft retailers. The stages also did not differ according to the years of buying experience of craft retailers.

**Keywords:** *buyer behavior, buying stages, buying process, craft retailers, craft producers*

## INTRODUCTION

In the last 10 years there has been a growing increase in the number of craft producers and craft retailers in SA (Department of Sports, Arts, Recreation and Culture, 2007). The increase is a result of a growing demand for craft products in the world market as well as the increase in the demand for souvenir products purchased by tourists during their travels (Moreno and Littrell, 2001). The role of craft retailers has also grown in importance as craft producers look into all available and alternative channels for distributing their products (Department of Sports, Arts, Recreation and Culture, 2007).

The craft industry contributes about R2 billion to the gross domestic product (GDP) in retail sales, with craft retailers playing a dominant role in the craft industry value chain (Kaiser and Associates, 2005), making craft retail an important part of the craft industry value chain. Craft retailing takes place through over 500 craft stores and other types of stores such as galleries, museums, small interior shops, gift shops and craft markets as well as national chains such as clothing shops, interior décor shops, furniture stores, hypermarkets, discount stores and jewellery shops (Department of Trade and

Industry, 2005). There is limited information on the buying behavior of craft retailers and the fact that no existing study has focused on this particular topic is a motivation for this study.

## ORGANIZATIONAL BUYER BEHAVIOR MODELS

Organizational buyer behavior refers to the process organizations go through when buying products or services (Dwyer and Tanner, 2009). A number of organizational and retail buyer behavior models exist that depict the stages in the buying process that organizations go through during the buying process. The first organizational buyer behavior model is the Robinson, Faris and Wind (1967) model. This model has been the most researched and most widely applied and published (Farell, 2006; Da Silva, Davies and Naude, 2002; Homburg and Kuester, 2001; Mawson and Fearne, 1997). It is generally known as the Buy Grid model. The model consists of the two sub-models, the buy phase and the buy class models. The buy phase model shows the stages that organizations follow in the buying process. There are eight stages, including recognition of a problem, determination of the product type needed, description of the product type needed, search for and qualification of potential suppliers, requisition and analysis of proposal, evaluation of proposal and selection of suppliers, selection of order routine and performance review (Hutt and Speh, 2007).

Other models of organizational buyer behavior include those developed by Webster and Wind (1972), De Boer, Labro and Morlacchi (2001) and Luo, Wu, Rosenberg and Barnes (2009). The model of Webster and Wind depicts the stages in the buying process as well as the tasks a buyer performs and the factors influencing such tasks during the buying process. The Webster and Wind model (1972) is similar to the Robinson *et al.* model (1967) in that they both depict the process buyers follow when involved in the buying decision. The difference is that the Webster and Wind (1972) model has fewer stages than that of Robinson *et al.*, (1967). The De Boer *et al.* (2001) model reflects four stages in the buying process. This model emphasizes the relative importance of supplier selection and evaluation during the buying process. The Luo *et al.*, (2009) model also shows four stages followed by a buyer during the process. Weele (2005) discussed six stages retailers go through when buying, arguing that retailers go through different stages in the buying process of an organization.

The above authors investigated the stages from the perspective of manufacturing organizations, while Weele (2005) discussed the stages from the perspective of retailers.

The Sheth (1981) model is another model that depicted the buyer behavior of retailers. This model was adapted from the Sheth (1973) model and was specifically developed for adoption by retailers. The model focuses on factors affecting retail buyers and the criteria retailers use during the buying process. It depicts only three stages in the buying process, which is why other models were adopted in this study. By adopting the stages from the above models, this study will investigate the buying

process and stages followed by craft retailers when buying craft products. The stages in the buying process in each of the stated models are shown in Table 1 below.

Table 1: Stages in the buying process

Stage in the buying process	Robinson <i>et al.</i> , 1967	Webster and Wind, 1972	Sheth 1981	De Boer <i>et al.</i> model (2001)	Luo <i>et al.</i> model (2009)	Weele (2005)	Stages investigated in this study
Problem recognition	√	√		√			Problem recognition
Estimation of the demand for a particular product						√	Estimating the demand for a particular product
Determination of product assortment policy and distribution strategy						√	Determine product assortment policy and distribution strategy
Determination of characteristic and quantity needed	√						Determination of characteristic and quantity needed
Precise description of characteristic and quantity of items needed	√	√					Precise description of characteristic and quantity of items needed
Determination of and decision on the supplier selection criteria to be used			√	√	√		Determine and decide on the supplier selection criteria to be used
Search for and qualification of potential sources	√	√	√			√	Search for and qualification of potential sources

Acquisition and analysis of suppliers	√	√		√	√		Acquisition and analysis of suppliers
Evaluation of proposals and selection of suppliers	√	√	√	√	√	√	Evaluation of proposals and selection of suppliers
Selection of order routine	√					√	Selection of order routine
Performance feedback evaluation	√				√	√	Performance feedback evaluation

As can be seen from Table 1, researchers differed in the number of stages retailers go through during the buying process. Ghingold and Wilson (1998) and Burger and Cann (1995) identified six stages in the buying process. Applying the Robinson *et al.* (1967) model to buying by restaurants, Mawson and Fearn (1997) found that restaurants go through an extended decision-making process, with eight buying stages. Fawzy and Samra (2008) listed nine stages in the process of buying and selection of a meeting site.

## THE ROLE OF BUYING EXPERIENCE IN THE BUYING PROCESS

The buying process, especially the supplier search stage, is influenced by the experience of a buyer. Some buyers look for suppliers from within their existing supply relationships, indicating the importance of the buying experience during the buying process (Johansson and Burt, 2004). According to Webster and Wind (1996:57) the learning experience of the buyer influences the buying decision. Da Silva, Davies and Naude (2000) have also indicated that the less experienced buyers exhibit different buyer behavior compared to the experienced buyers. Since buyers are evaluated on the margins they can attain (Da Silva, Davies and Naude, 2000), they could spend more time and effort searching and evaluating suppliers. Crittenden, Scott and Moriarty (1987) investigated the impact of buying experience in organizational buying. The study reported that the more inexperienced the buyer, the less invoked set they have and that those that are more experienced consider a large number of selection attributes during the supplier selection and evaluation stage. Park and Krishna (2001:267) and Yu, Fairhurst and Lennon (1996:20) also found that years of buying experience affect the decision on which supplier selection criteria to use when evaluating suppliers.



Furthermore, Moriarity and Spekman (1984:144) showed that experienced buyers develop greater knowledge of products and suppliers and feel more comfortable evaluating competing products and suppliers without assistance from other people

Buyers involved in repeat purchase situation develop a structured choice process while those involved in other situations would be involved in a different choice process (Bunn, Butaney and Hoffman, 2001; Sproule and Archer, 2000). This implies that buyers will go through different buying process depending on experience in buying a product.

Johansson and Burt, (2004:810) reported that the experience of a buyer is only important when buyers select suppliers from the existing supply relationships and not when looking for new ones. Furthermore, Farrell (2006:96) found that buyer behavior of import buyers differed with years of buying experience. The buying experience was also found to apply mainly in the rebuy situation (Mawson & Fearne, 1997:242).

## **PROBLEM STATEMENT, OBJECTIVES AND HYPOTHESES**

A study conducted among craft producers in Gauteng, South Africa revealed that they experience difficulties selling to craft retailers and that craft retailers purchase only 36 percent of craft products from SA (Department of Sports, Arts, Recreation and Culture, 2007). The Wesgro study (2000) also confirmed that craft producers find it difficult to access the craft retail market. As a result, some craft producers resort to selling directly to end consumers, using direct channels instead of selling through the retailers (Wesgro, 2000), this despite the growing role of craft retailers in the craft industry value chain. Craft retailers are creators of the markets, developers of new products and are also able to source new products (Hay, 2008). There is an active retail market for craft producers. However, craft producers do not have access to such markets. This is due to a lack of understanding of retail buyer behavior as well as of the selection criteria used to evaluate and select suppliers. Such an understanding would help suppliers to capitalize on the increased demand for their products (Skallerud and Gronhaug, 2010).

The purpose of the study is to investigate the buyer behavior of craft retailers in SA. The specific focus will be on the buying process followed by craft retailers when buying craft products

The objectives of the study were as follows:

- To determine the buying stages that craft retailers go through when buying crafts.
- To ascertain if the buying stages differ across different types of craft retailers.
- To determine if the buying staged differ according to the years of buying experience of craft retailers.

To address the above objectives, two hypotheses were formulated.

From the above discussion, the following hypothesis was formulated:

H<sub>1</sub>                There are significant differences between types of craft retailers and the number of buying stages they go through

H<sub>2</sub>                There are significant differences between the years of buying experience of craft retailers and the buying stages they go through

## METHODOLOGY

The study adopted a survey method targeted at craft retailers in South Africa. This included craft retailers of different types and sizes such as craft shops, small interior and gift stores, interior and decor shops, discounts retailers, clothing shops, furniture shops, museums, galleries, jewellery shops and destination retailers. A non-probability convenience sampling method was adopted owing to the difficulties of identifying craft retailers and the fact that there was no reliable and easily accessible database of craft retailers. According to Cooper and Schindler (2006) convenience sampling is suitable when there is time constraints and lists of available units are either incomplete and not up-to date, as with the case of SA craft retailers.

Data were collected electronically through email as well as personally hand delivered questionnaires to craft retailers for self-completion. The total number of questionnaires sent out to craft retailers was 681. Of the 681 questionnaires, 273 were completed and returned. However, only 233 of the 273 completed questionnaires were usable, giving a response rate of 34 percent. The remaining 40 questionnaires were incomplete, with some questionnaires only half done or missing multiple responses; these were therefore disregarded and not included in the analysis.

The questionnaire was of self-completion nature and was designed using information collected from a preliminary qualitative study (interviews) which was conducted among craft retailers and industry experts as well as from the literature. Respondents were requested to indicate if they go through the 16 stages listed on the questionnaire by answering Yes or No. The questionnaire was pre-tested using the participant pre-test method with 12 craft retailers and the wording of some questions were slightly altered to ensure clarity. Furthermore craft retailers did not receive any incentives and participation was voluntarily.

Data were analyzed using SAS software. Descriptive statistics and ANOVA tests were conducted and the results are reported and discussed in the next section. ANOVA is a statistical analysis used to test the differences between two means (Sudman and Blair, 1988) and helps estimate group differences on their means among the groups. Where the estimates of scores and means do not differ, it is assumed that all the group means originate from the same sampling distribution of means. Where the group

means differ more than expected, it can be concluded that the group means were drawn from the different sampling distribution of means, and the null hypothesis that the means are the same is rejected (Tabachnick and Fidell, 2001). As ANOVA indicates differences only, the Duncan's multiple range test, a post-hoc test which makes comparisons among groups to determine if significant differences exist (Hair, Black, Babin and Anderson, 2010), was used to identify where these differences between groups were.

## ANALYSIS AND DISCUSSION OF THE FINDINGS

### *Descriptive statistics*

The sample consisted of various types of retailers as depicted in Table 2 below. Of the 233 respondents, 94 were craft stores, representing 44 per cent of the total population. Destination retailers were the next biggest group, representing about 16 per cent (n=35) of the population, followed by the small interior/gift stores with about 12 per cent (n=27) of the population. The rest of the respondents, clothing stores, discount stores, furniture stores, galleries, museums, jewellery shops and destination retailers, had a very small representation.

**Table 2: Types of craft retailers**

Types of craft retailers	Frequency	Percentage
Craft store	94	43
Small interior/gift store	27	12
Interior decor/home ware store such as Mr Price Home	13	6
Clothing store such as Woolworths or Truworths	7	3
Discount store such as Makro or Game	2	1
Furniture store	8	4
Gallery	7	3
Museum	5	2
Jewellery shop	16	7
Destination retailers	35	16
Other (please specify)	6	3
TOTAL	220	100

n= 220 Missing responses = 13

For the purpose of statistical analysis, craft retailers were collapsed into five groups: the craft stores; small interior/gift stores; large retailers such as interior décor/homeware stores, clothing stores, discount stores and furniture stores; specialty stores such as galleries, museums and jewellery shops; and destination retailers. The five groups excluded the 'other' category since there were no types of retailer mentioned. Therefore, the five groups consisted of 214 responses. The representation of the

five groups were as follow: craft stores (44%), small interior/gift store (13%), large retailers such as clothing and décor stores (14%), specialty stores such as galleries, museums and jewellery shop (13%) and destination retailers (16%).

The respondents consisted of buyers, managers, owner-managers, manager-buyers and executives responsible for buying. The owner-managers were the largest group, comprising 44 per cent (n=101) of the population. Managers were the second largest group of respondents, comprising over 18 per cent (n= 42) of the population. This was followed by manager-buyers, with about 14 per cent of the population (n=31). Buyers made up over 12 per cent of the population (n=28). The last group of respondents was the executives, who represented about 12 per cent of the population, consisting of 27 respondents.

Table 3 below depicts the stages craft retailers go through. The frequencies and percentages as well as the number of respondents are shown.

**Table 3: Stages in the buying process**

Stages in the buying process	N	Frequencies		Percentages	
		Yes	No	Yes	No
We identify a need for craft products	233	219	14	93.99	6.01
We determine the characteristics and/or quantity of the craft products needed	232	210	22	90.52	9.48
We create a precise description of the craft products needed	231	154	77	66.67	33.33
We estimate the demand for a particular craft item	231	195	36	84.42	15.58
We determine the product assortment i.e. product lines/range and number of product per product line)	230	188	42	81.74	18.26
We decide how much stock to keep and therefore how much to invest	233	194	39	83.26	16.74
We formulate the criteria that will be used to evaluate suppliers	232	170	62	73.28	26.72
We search for potential suppliers	232	202	30	87.07	12.93
We visit and/or interact with the supplier to learn more about them	232	187	45	80.60	19.40

Stages in the buying process	N	Frequencies		Percentages	
		Yes	No	Yes	No
We evaluate and/or select craft suppliers	233	203	30	87.12	12.88
We place trial order/s and finalize the approval of suppliers	232	168	64	72.41	27.59
We negotiate trading terms with suppliers	232	202	30	87.07	12.93
We develop a contractual agreement with the supplier	231	152	79	65.80	33.77
We place replenishment orders i.e. more quantities after the first trial order	232	176	56	75.86	24.14
We expedite and evaluate the supplier's and product performance	231	200	31	86.58	13.42
We provide the suppliers with feedback about their product performance	232	184	48	79.31	20.69

From Table 3 it is evident that the majority of craft retailers, as represented by 94 percent (N=219) of the respondents, indicated that they went through the stage of a need identification, and that 'we determine the characteristics and/or quantity of craft products needed', as indicated by 91 percent of respondents. Craft retailers do not all follow all the listed stages, as shown by the fact that 34 percent (N=79) of the respondents indicated that they did not go through the stage of developing a contractual agreement with the supplier, or 'create a precise description of craft products needed', as revealed by 33 percent (N=77) of respondents. Approximately 27 percent of the population (N=62) indicated that they also did not formulate criteria to evaluate suppliers. Generally the results of the stages listed in the buying process indicate a fairly high percentage of agreement (Yes) among the respondents regarding the stages retail buyers go through.

The stage which craft retailers use most when buying crafts is 'we identify a need for craft products', as indicated by almost 94 percent of respondents. This stage was followed by 'we determine the characteristics and/or quantity of the craft products needed', as shown by over 91 percent of the sample, 'we evaluate and/or select craft suppliers', with just over 87 percent of the population, 'we negotiate trading terms of suppliers', represented by over 87 percent of the sample and 'we search for potential suppliers', represented also by over 87 percent of the sample.

The least used stage in the buying process of a craft retailer is 'we develop a contractual agreement with the supplier', agreed to by about 66 percent of the sample, followed by 'we create a precise description of the craft products needed', which was agreed to by about 67 percent of the sample. The third least-used stage in the buying process of the craft retailers was found to be 'we place trial order/s and finalize the approval of suppliers', as indicated by over 72 percent of the sample. Another important aspect worth noting in the buying process is the fact that 28 percent (N=64) of craft retailers revealed that they did not place trial orders to finalize the approval of suppliers. Some craft retailers, as indicated by 34 percent of the respondents, did not enter into contractual agreements. It is evident that the majority of craft

The fact that some craft retailers do not develop contractual agreements with craft producers also applies in other industries sourcing products from informal and small organizations, where verbal orders, agreements and price negotiations are made (Bienabe and Vermeulen, 2007). Previous studies have indicated that in some buying situations, buyers have difficulty in measuring or specifying the exact nature of the products needed and that buyers are more concerned about the quality and performance of the product (Francis and Brown, 1985-86). Another study revealed that the exact specification evolves from the samples, through appearance and product sampling (Mawson and Fearen, 1997).

Furthermore, Esbjerg and Skytte (1999) found that the majority of retailers placed trial orders before they sourced more products, which supports the findings of this study, where 72 percent of craft retailers placed trial orders before large orders were placed. According to Johansson and Burt (2004), the buying stages differ for the first stages of the buying process while the rest of the stages in the process are similar. This study found that the first two stages were undertaken by the majority of craft retailers, as shown by the 94 percent and 91 percent of craft retailers who went through these stages in comparison with the percentages of those retailers who went through the other stages such as 'we create a precise description of the craft.

#### *Testing the hypotheses*

The first hypothesis serves to determine whether the number of buying stages differs across the five types of craft retailers. ANOVA testing was conducted to test  $H_1$  and the results are reflected in Table 4.

**Table 4: Mean scores and ANOVA results for stages across types of craft retailers**

Types of craft retailers	N	M	SD	DF	F value	P value
Craft store	90	13.16	2.42	4	1.70	0.1506
Small interior/gift stores	26	11.84	3.01			
Large stores	28	13.53	2.39			
Specialty stores	27	12.88	3.05			
Destination retailers	35	12.80	2.63			

As can be seen in the table, the p-value of 0.1506 is larger than the specified significance level of 5 percent, thus showing no significant differences in the mean values of the number of stages of the buying process and across different types of craft retailers. Thus, there is no significant difference in the stages craft retailers go through across types of craft retailers. **H<sub>1</sub> was therefore not supported and the null hypothesis was accepted.** According to Johansson and Burt (2004), the number of buying stages is determined by the types of products being bought and might not be the same for different types of products. However, the findings in this study suggested that different types of craft retailers do not differ regarding the number of stages they go through.

To test the second hypothesis, ANOVA testing was done to determine if there were significant differences between the numbers of stages across the years of buying experience. These results are reported in Table 5. As can be seen in the table, the p-value of 0.3351 is larger than the specified significance level of 5 percent, thus showing no significant differences in the mean values of the stages across years of buying experience. Therefore, the null hypothesis was accepted and H<sub>2</sub> was not supported.

**Table 5: Mean scores and ANOVA results for stages across years of buying experience**

Buying experience	N	M	SD	DF	F value	P value
0-5 years	73	13.19	2.65	2	1.10	0.3351
>5-10 years	69	13.00	2.30			
10+ years	64	12.62	2.95			

It can be concluded that craft retailers with different years of buying experience do not differ regarding the number of buying stages they go through when buying craft products. It seems that buying experience plays no significant role in the number of buying stages used.

## CONCLUSION AND LIMITATIONS OF THE STUDY

A list of 16 stages was provided based on the literature review and interviews. The majority of craft retailers (66 percent) go through a lengthy buying process consisting of 16 stages. This is an indication that the buying process of some craft retailers involves far more stages than those suggested in the existing literature. It is also an indication that craft product buying is a complex process and that craft retailers are involved in a new buy situation. This could be due to the lack of standards in the industry and the fact that craft producers are scattered all over the country. The most used stages in the buying process are 'we identify a need for craft products', (94 percent), 'we determine characteristics and/or quantity of the products needed' (91 percent), 'we search for potential suppliers' (87 percent), 'we evaluate and select suppliers' (97 percent), and 'we negotiate trading terms with suppliers' (87 percent). It is therefore important for craft producers to ensure that they are aware of the needs of retailers for craft products and also to ensure that retailers are aware of them. As some small craft producers may not have the necessary skills to enter into negotiations with large retailers, this is an area where government could play an important role by providing training and legal advice.

The least used stages are 'we develop contractual agreements with the supplier' (68 percent), 'we create precise description of the craft products needed' (67 percent) and 'we place trial order/s and finalize the approval of suppliers' (72 percent). No significant differences were found among the different types of craft retailers and the number of stages retailers go through. It can be concluded that the majority of craft retailers exhibit homogeneous buyer behavior by going through the same number of buying stages in the buying process. This suggests that little variation exists and will ultimately make it easier for craft producers who want to make use of a standard/undifferentiated approach of selling to craft retailers. Craft retailers with different years of buying experience also exhibit similar buyer behavior in going through the same number of buying stages, implying that experience does not play a role in the number of buying stages used.

The study adopted a convenience sampling method. Only craft retailers that were easily accessible were targeted. The non-response error and the sampling error could not be determined. Although the study targeted craft retailers in SA, it was not possible to target retailers in all the provinces because of lack of data on craft retailers. Some of them were inaccessible because their phones were out of order or the retailers were no longer in operation. Some craft retailers were not willing to participate. It was also not possible to target equal numbers of different types of craft retailers, owing to convenience sampling, fewer large retailers and because some of them were either not interested or they were difficult to get hold of. Owing to the nature of non-probability sampling, the respondents used in the study are not representative of the broader SA craft retail population. Therefore, the results cannot be generalized.



Although the study has identified the stages in the buying process, it did not provide information on what happens in each of the stages and how the stages are executed. Therefore a study could investigate what craft retailers do in the buying process and how they execute the process. This study might not apply to international retailers. Therefore another study could investigate the buyer behaviour of international craft retailers and compare the findings with those of the local retailers. This study could also be replicated in a different industry to investigate how retailers behave when buying other products.

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## ARCTIC ICE MELTING AND NORWEGIAN PORT POTENTIALS

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### ABSTRACT

With the rise of temperatures, the Arctic ice gradually melts away triggering a series of environmental, political and of course economic developments. Besides the vivid environmental concerns and the debate on the consequences, global economy is also expected to experience major changes. Each risk may constitute an opportunity, remark exemplified by the current case. Given that the Arctic will be accessible for the first time, unprecedented development opportunities emerge, as well.

At the same time, navigation will be possible not only in the summer but also during winter months, provided that no action is taken for the reversal of the temperature rise tendency. Climate change is a reality and its effects are going to become more evident as time goes by and the North will become a region of great and broad interest. Norway, not only an Arctic country but also an important one at the global energy map, is expected to hold its place for the coming decades, whereas Public - Private Partnership contracts and concessions may be convenient alternatives for the increased need of infrastructures, generated by the accessibility of the Arctic region.

**Keywords:** *Arctic Ocean, Crimean Peninsula, Environmental change, Maritime Law, Piracy Law, Ports, Norway, Public - Private Partnership (PPP), Russia, Law of the Sea*

### INTRODUCTION: MOBILITY IN THE ARCTIC

The Arctic is a region that is going to draw the interest of the international community, increasingly in the years to follow, due to a number of reasons; it is about a region of particular interest for the global community as economies, trade routes and international relations will be called to balance on a new set of data. To date, we were used to studying the way human activities affect the environment, focusing on eliminating the negative impacts. For the first time in modern history, circumstances drive us to

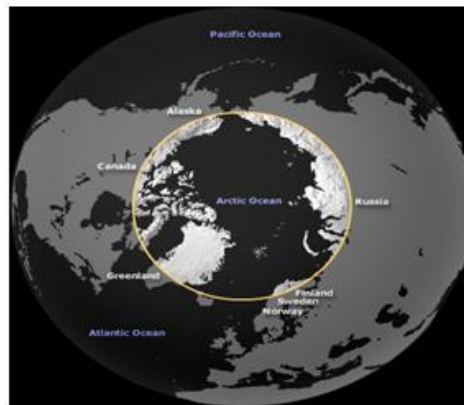
examine how environmental change influences human activities and more specifically, politics, business and law.

In the past, the Arctic region did not attract a lot of attention, due to its inhospitable climate. However, Arctic ice melting has turned all eyes on this part of the globe. A new reality is being formed for shipping and modern maritime transport due to environmental change. Nevertheless, compact ice and an ambiguous legal regime cause significant complications, when it comes to matters of ship transit, transport, checks, research, rescue and exploitation of the available natural resources. With climate change acting as “threat multiplier”, the question put is how states will take part in the escalating competition to reap geopolitical and just as importantly economic benefits in a region rich in natural resources. In this context, coastal states are expected to seize the opportunities offered to develop their infrastructure in order to accommodate the increasing traffic. This paper is going to focus on Norway given that this state is an Arctic country, a part of the European economy and its ports are already included in the shipping routes crossing the Arctic Ocean.

Shipping, a sector intertwined with the natural environment, is expected to experience unprecedented development opportunities. Nevertheless, as in every endeavor there are numerous issues that need to be dealt with, before a development spurt takes place. The Arctic is an inhospitable yet promising region; a blend of natural wealth, shorter maritime routes, overlapping state claims and possible escalation of interstate tension. Taking under consideration the unpredictable nature of the region, there is questioning whether it is an economically viable effort. Still, if the global temperature does not begin to drop, this will only be a question of time. Regional states need to prepare themselves for this new reality, either by establishing -if not in place- a policy for the Arctic or by building the infrastructure that will be able to maintain or attract increased traffic and capital movement.

Given the acute economic crisis that affected all national economies and the difficulty to dispose public funds for various scopes, Public - Private Partnerships (PPPs), a relatively new legal and managerial tool, may just be what is needed to go through with the necessary planning and realization of projects that not only will benefit the owner country but they also will become a part of the emerging Arctic economy.

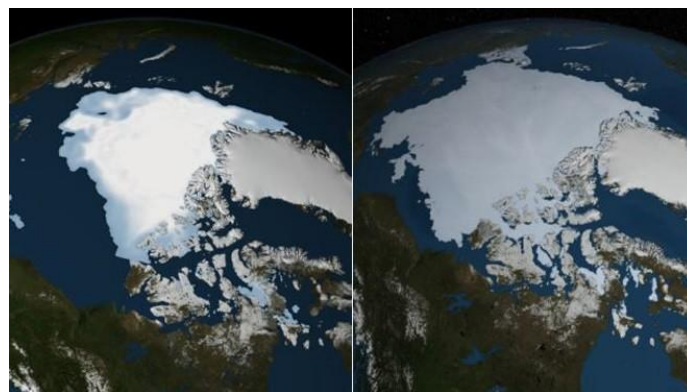
## THE REGIONAL NATURAL ENVIRONMENT



*Figure 1: The Arctic Region*  
[Source: [www.bugbog.com](http://www.bugbog.com)]

The Arctic is most commonly identified with the North Pole or taken in by the “Arctic circle”; for the paper in hand, the region of the “Arctic” entails the Arctic Ocean and parts of the five coastal sovereign states, namely the U.S.A. (Alaska), Canada, Denmark (due to Greenland, a huge island that has become an autonomous state of Denmark out of EU!), Norway and Russia.

New climate data, namely global warming, have caused great environmental concern due to the series of changes brought upon sensitive ecosystems. Besides the environment, however, regional as well as global economy is expected to undergo changes. During the past, with the exception of the Cold War era, the Arctic rarely drew the attention of the global community, given the inhospitable conditions. Arctic ice melting is now oversetting this reality, even causing fears of an irreversible situation.



*Figure 2: Diminishing Arctic ice (now – before)*

Source: <http://www.epa.gov>

The Arctic is the most rapidly warming region of the planet and is therefore used as a global climate index due to its sensibility. According to ESA (European Space Agency) and NSIDC (National Snow and Ice Data Center) estimates, the lowest ice levels were observed during the past five years,

monitoring a time period from 1970s when the first satellite observations started, while the rate of diminishing ice coverage increases.

In addition, a pivotal aspect of the region's prospects is that it is believed to hold around 15% and 30% of the undiscovered oil and natural gas reserves respectively (USGS), 85% of which is expected to be found within the maritime zones of the coastal states. Furthermore, there are significant minerals and fishing deposits. States' rivalry for accessing these deposits has led to increased presence in the region (either scientific or military, for instance in the form of training) spurring fears of a potential escalation of tension.

## **AN INTERNATIONAL LAW APPROACH TO THE ARCTIC**

The exploitation of resources is primarily claimed by the five aforementioned littoral states while other sovereign states of the broader region, such as Sweden, Finland and Iceland, state their presence, as well. Some of the major limitations of the region concern the pending maritime delimitation issues among the coastal countries. As expected, in a semi-closed sea like the Arctic, state claims overlap and rivalries follow. There is no settled legal and regulatory framework for the region -a prerequisite not only for the energy exploitation (extraction and transport), but for the fisheries' management and search and rescue operations as well (Borgeson, 2009). It needs to be noted that fish population in the Arctic Ocean is among the largest ones globally, with around 10% of the world fisheries coming from there. However, as ice melts and water warms whilst fish does not abide by juridical and geopolitical schemes, such as rules and national borders, it is not known how they will react or whether they will move to the North, causing additional controversy for the Arctic states (Flores et al., 2003). The United Nations Convention for the Law of the Sea (UNCLOS), signed in 1982 and put into force in 1994, offers the legal framework for the delimitation of the maritime zones and for the resolution of disputes resulting from contested regions. As it defines, each coastal state is entitled to:

Maximum 12 n.m. of territorial waters, where it exerts absolute sovereignty (while beyond territorial waters may start "high seas" ruled by the principle of freedom),  
a contiguous zone up to maximum 24 n.m., within which it has rights for specific purposes and  
an Exclusive Economic Zone up to 200 n.m. counting from the baselines (from which all maritime zones extend) and where it has rights of mainly economic nature (e.g. exclusive fishing rights, exploitation and preservation of natural resources etc.).

It needs to be noted that the Exclusive Economic Zone is a very important innovation of the UNCLOS, able to change the status quo of coastal states, as in the case of Cyprus.

The continental shelf (maximum extent of 200 n.m. and, on special occasions, of 350 n.m.) on the bed and subsoil of which there are rich natural resources, triggers the rivalries. It is notable that the

extension -if possible- has to be claimed within ten years starting from the date of the accession to the Convention; Finland 21.06.1996, Norway 24.06.1996, Sweden 25.06.1996, Iceland 14.02.1997, Russia 12.03.1997, Canada 07.11.2003, Denmark 19.12.2003. However, the USA have not yet ratified the Convention, hindering their ability to promote their interests in the region and possibly putting themselves in a strategically disadvantageous position on the political chessboard of the Arctic.

The current Law of the Sea comprises the UNCLOS and the Agreement of New York, in 1994, on international seabed, namely the seabed beyond the state limits.

In order to facilitate communication and cooperation, the Arctic Council was established in 1996 (Ottawa Declaration) as an intergovernmental forum for the Arctic governments and peoples. Currently, it has permanent members, namely the five coastal states, in addition to Sweden, Finland and Iceland that are considered to be Arctic states and to other states endowed with a permanent or ad hoc observer status. The main agenda of this scheme revolves around the topics of environment, sustainable development, know-how exchange, accident management, search and rescue operations etc. An interesting point is that security issues were not included in its mandate, following an objection of the USA, which almost all members shared. It is to signalize that four out of the five coastal states are NATO members and that NATO is ruled by the consensus principle of all members for decision-making. After all, security and defence issues are much more sensitive for a sovereign state and therefore they are issues upon which it is extremely hard to reach to an agreement.

Our attention is caught by the number of the countries which signed the Svalbard Treaty in 1920, an early indication of the persisting interest for the region and the involvement of third countries. As expected, neighboring states of the broader region share common interests, i.e. economic ones (natural resources e.g. fisheries), energy ones (energy safety), transport ones (new global maritime transport, search and rescue), scientific ones as well as environmental concerns (climate change, biodiversity). Nevertheless, there are also some third actors wishing to gain benefits from the regional dynamic, such as the E.U. and China. The European Parliament considers the Arctic to be pivotal for the European (and energy) security and is trying to increase its presence in the region as well as to make up for the fragmented legal framework (The High Representative and the European Commission, 2008). New Arctic routes sound appealing to Japan, South Korea (shipbuilders specializing on ice conditions), Taiwan and India. In fact, some of them have already financed scientific expeditions to the Arctic. However, a solid legal and regulatory regime is vital in order to attract international investments.

The importance of a lucid legal regime in the region becomes evident when we think of ecosystem protection (pollution cleaning), search and rescue (increased Arctic tourism and commercial traffic) and navigation regulation as the ship traffic increases (danger of drug or weapon smuggling, illegal migration, terrorism). The protection of international commercial transit has great importance for the



secure transport - an issue that would acquire a hardcore position once commercial and technological change would enable regular maritime use and large scale resource extraction.

## **CASES OF RUSSIA'S EXPANSIONISM AND INTERNATIONAL LAW**

It is to pay special attention to the strategic role of the successor of the superpower Soviet Union. Russia symbolically staked its claim to billions of dollars' worth of oil and gas reserves in the Arctic Ocean on August 2<sup>nd</sup> 2007 when two submarines reached the seabed more than two and a half miles beneath the North Pole. A one-metre-high Russian flag was planted on the Lomonosov ridge, a motion that illustrated the new strategic interests of the states involved (The High Representative and the European Commission, 2008). The ridge is an underwater mountain crest that runs 1.240 miles across the polar region. In 2001, Russia submitted research findings to that effect to the UN, but they were turned down.

The current study has become particularly actual, on account of the very recent development in the Black Sea. The Crimean Peninsula, on a basis of a referendum, held in 16.03.2014, became a territory of the Russian Federation. This peaceful revolution of the majority of the inhabitants of the Peninsula, belonging to the sovereign state of Ukraine, has not been officially recognized; but it has highlighted the strategic role of Russia. So, a new important parameter has been added in international relations, the expansionism of the Russian superpower, even against International Public Law. This expansionism is bipolar and to a great extent sea-centred, exemplified by the developments in the Arctic and in the South (invasion in Ossetia and creation of a non-sovereign state there, in 2008, incorporation of the Crimean Peninsula and shortly afterwards the civil war in Eastern Ukraine, in 2014).

## **ARCTIC SHIPPING ROUTES AND PIRACY LAW**

Everything has two sides; despite the somber environmental and sinuous political situation, the Arctic is being converted from a region of mainly scientific interest into one of significant commercial and national interest. Ice melting raises sovereignty questions but it also permits the transit of passages (though they remain dangerous due to adrift ice). At present, 4/5 of international trade is carried out by sea (International Transport Forum, 2012) and for a planet composed of water by 70% this is translated into passenger and freight access at any part of the globe. Long-distance maritime routes use "traditional" routes, the main of which go through the Panama Canal, the Suez Canal and the Malacca Straits that are heavily congested. The time required is long and increases the cost respectively. For instance, travelling from Murmansk to Ulsan, Korea through the Cape of Good Hope is 102 days long. Through the Suez it would be 80 days, while via the Northwest Passage, just 55. Besides that, the

danger of piracy, which main routes face, is present and despite the great efforts to eliminate it, it has not ceased to exist. Just the opposite, the “crime against humanity” according UNCLOS, piracy at high seas, has been dramatically come to actuality, the last two decades.

With the Arctic Ocean turning into a bridge of communication for distant regions of the globe, its use could also mean the bypassing of piracy prone locations. Incidents where cargo and crew are captured to be exchanged for ransom are not rare, causing fear for the seafarers and increased cost for the shipping companies. The toll is high, given that fatalities are also known to happen. Should the use of an Arctic route offer the possibility to avoid such mishaps, it could alter the main maritime routes currently in use.

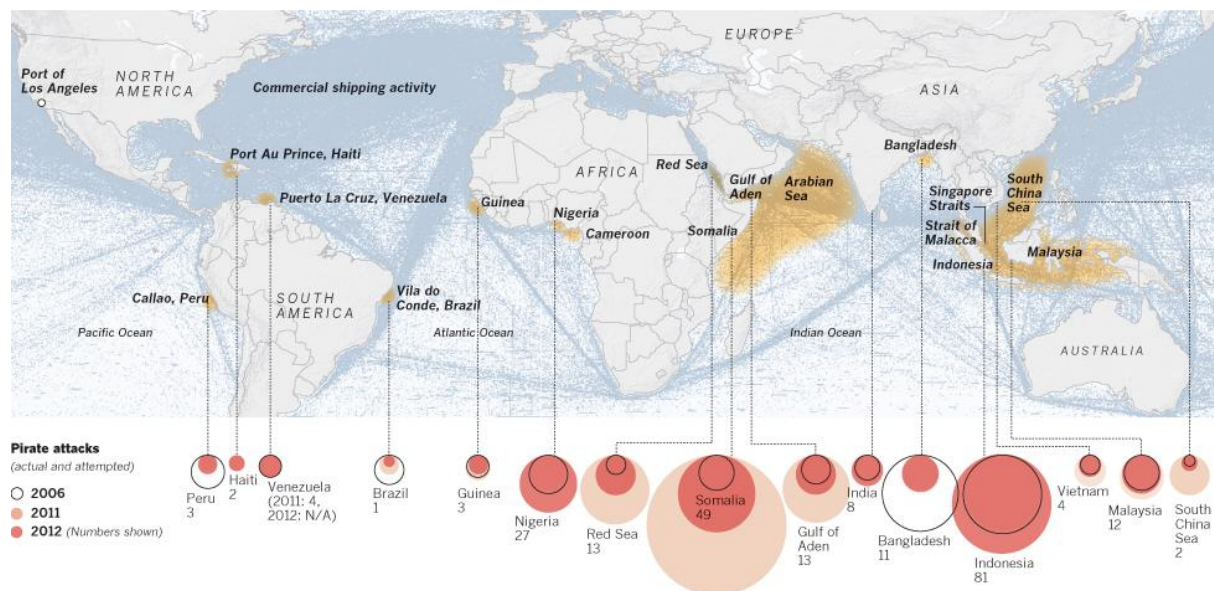


Figure 3: Piracy prone areas

Source: <http://graphics.latimes.com/towergraphic-la-fg-sea-piracy/>

The opening of the ever frozen North Passage and the shorter shipping routes by thousands of nautical miles bring the Arctic to the forefront. Following the example of the Norwegian explorer Amundsen, who sailed first through the North West Passage (1903-1906), and the S/S “Manhattan” (a specially reinforced supertanker) in 1969, the first ship able to follow a route suitable for commercial traffic and carry cargo (accompanied by a Canadian icebreaker), an Open Passage -the ardent passion of shipping since the 15th century- will become a reality. According to estimates, this will be feasible within just two or three decades, adding high value to a formerly inhospitable or even forsaken part of the world. The passage through Arctic waters offers the possibility to detour dangerous passages, it thus offers strategic alternatives to countries like Japan, which would greatly benefit in case it could bypass the Malacca Straits, on which it is currently dependent for its energy supply. Important states, such as China and Japan, which wish to use the Arctic passages, have been attracted, taking under

consideration that nautical miles and fuels are saved, thus cost is saved in comparison to traditional shipping routes.

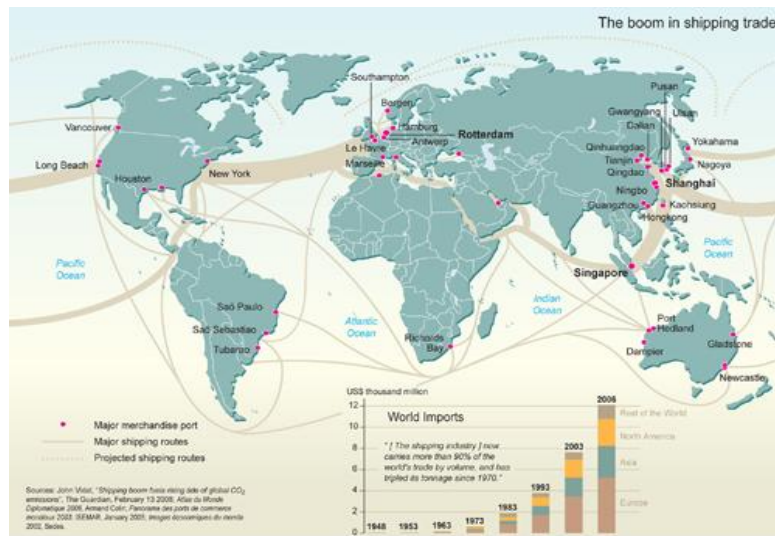


Figure 4: Shipping Trade Routes

Source: UNEP-Arendal, <http://www.grida.no>

When it comes to Arctic Routes, there are two that are currently in use and one which will become a reality, should the climate change proceed in the same pattern.

- ♦ The Northeast Passage or Northern Sea Route (NRS): It connects the Atlantic Ocean with the Pacific and can serve as a transit corridor for Europe and East Asia, an alternative to the Suez Channel and can reduce the distance by 40% compared to the route through the Indian Ocean. It is a maritime corridor adjacent for most of its part to the Russian Federation. Roughly described as running through the Norwegian, Barents, Kara, Laptev, East Siberian, and Chukchi seas to the Bering Strait.
- ♦ The Northwest Passage: This route links the Atlantic and the Pacific Oceans through the Canadian Arctic Archipelago and more specifically, starting from Baffin Bay through the archipelago to the Beaufort Sea through the Chukchi Sea to the Bering Sea. This can be an alternative for the Panama Canal, though it can be less predictable due to adrift floes which may block parts of the route. The use of this passage yields significant gains considering that the travel distance from Europe to the Asian markets would be shortened significantly and resources from Alaska or Northern Canada could reach North American and European markets much faster. It needs to be noted that there is a pending issue between Canada and the United States. Canada claims that the Canadian archipelago consists in internal waters, so

ships should comply with innocent passage rules whereas the USA (as the EU) maintain that this region should fall under the international strait regime, implicating free navigation.

- ♦ The Central Arctic Route: Should the climate change proceed, it is possible that there would be a point when ships would be able to cross the Arctic Ocean following a straight line. This is far from feasible at the moment and will only become a reality if the entire Arctic ice melts away.

Ice is a definitive factor regarding navigation and time needed for the passing. Although the Arctic routes are not consistently ice-free and often require the escort of icebreakers, ice tends to be thinner, facilitating the carving of channels. Ships are able to sail through starting early July to late November. In summer of 2012, 46 ships sailed through Arctic waters, according to Arctis research group (ARCTIS, 2013) carrying significantly more cargo compared to 2011. In case there is no radical shift in the climatic reality, more traffic is expected for the Arctic routes, a development that could dramatically change the current global shipping hubs.

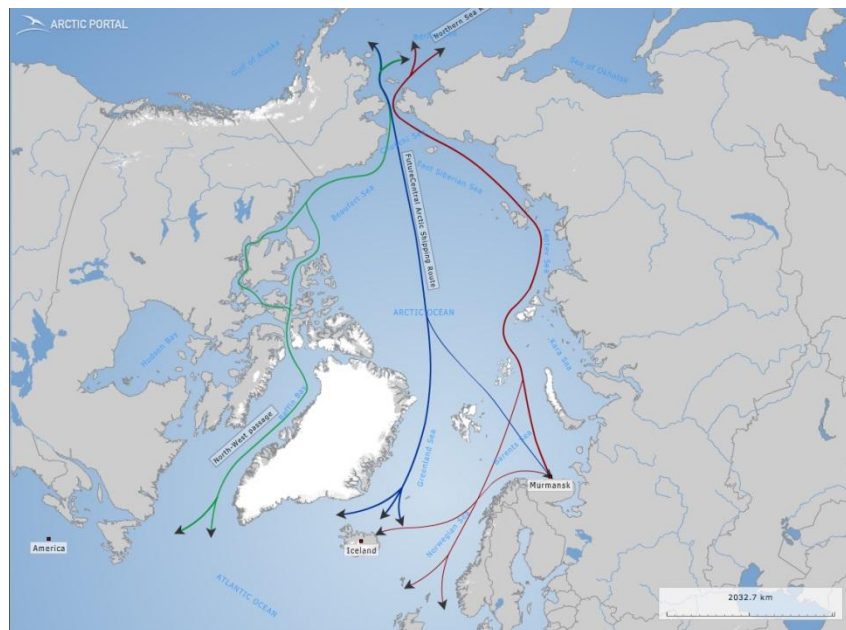
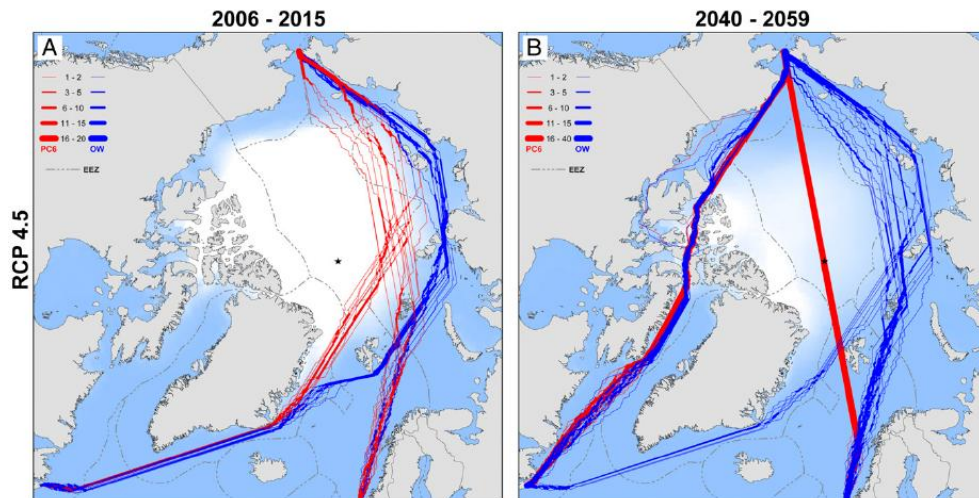


Figure 5: Arctic routes

Source: <http://agmetallminer.com>



Figures 6,7: Arctic marine use

Source: Smith, Stephenson, PNAS, 2013, p.3

It is notable that these routes are not expected to become a part of regular shipping any time soon, given that weather conditions not only vary, but they also remain extremely challenging. Even when the passages are free, they are navigable for a limited time frame for shipments and exploitation. Ships with no icebreaking capacity can only use them in summer months and polar class ships are not yet very common. Similarly, the exploitation of the natural resources, although discussed, faces severe hindrances and many prerequisites need to be met before there is easy access and therefore ability to exploit the region's energy resources. The existing dangers, even when no legal settlement is needed, cannot be downgraded and the retraction of Shell in Kulluk due to extreme environmental conditions causing severe operational hindrances is indicative of the demanding conditions and the thorough programming needed to carry out such projects. The lack of adequate maritime traffic management poses further challenges, in addition to the environmental concerns.

An oil spill in the Arctic would have immense consequences for the regional and global seas, let alone the fact that cleaning operations would need to take place in extremely harsh conditions. High insurance rates, working dangers, uncertainty which discourages commercial shipments due to the extra (insurance) charges involved, big investments needed in the region (infrastructure, icebreaker construction) are found among the challenges. The abovementioned hurdles can easily nullify the advantages offered by shorter routes. Nonetheless, from a geographical viewpoint, sailing through the Arctic would imply great economic profit, given that the travel time is shorter, fuel is saved, the cost of transport is reduced and therefore the final price of the product for the consumer is also reduced along with fewer emissions for the environment.



## **REGIONAL ACTORS: NORWAY**

The 2010 agreement between Norway and Russia, which delimited maritime zones and settled a long-lasting dispute at the Barents Sea, allows the unimpeded use of the waters in question. An unambiguous legal status can not only encourage investment activities but also be considered as a prerequisite, having in mind that precarious environments cause flee of capitals.

Norway is a coastal state with a significant maritime activity. Given that the vast majority of international commerce is carried out by sea, as already signalized, and 80% of the global industrial production takes place at the northern part of the globe, one can easily understand the importance of being at the geographic forefront. Norway has a vested and demonstrated interest in this sub-region.

Although Norway is not a member of EU, it is closely associated (European Economic Area, European Free Trade Association). Its economy is based on oil and natural gas and it is currently among the top energy producers worldwide and the second natural gas exporter (Russia being the first). In the same time, it is not a big consumer and therefore exports the majority of its production, providing among others, the EU with natural gas. The larger amount of the exported oil comes from platforms operating on the Norwegian Continental Shelf (NCS) and there are estimates about substantial reserves in the same region, to be exploited.

The Arctic, being an area of extreme climate conditions, is in need of a different approach in comparison to the traditional maritime routes. Ice conditions and lack of daylight during a long period of time, dictate that states need to cooperate for search and rescue issues, environmental protection etc. Norwegian authorities have opened the NCS to a wider range of enterprises whilst the local reserves attract big international companies. Today, there are around sixty oil companies involved in the Norwegian oil industry, with Statoil carrying out the majority of the activities on NCS.

Given the long coastline, Norway has numerous ports across the country serving as main transport centers. Mongstad, home of the principal refinery of the country, is also a port included in the aforementioned NSR passing. According to recordings (Northern Sea Route Information Office, 2011-2013), the ports of Alesund, Mongstad and Larvik in the South, as well as the ports of Kirkenes, Honningsvåg and Hammerfest in the North, are either start-ports or end-ports for ships crossing the NSR.

## **PPP AND CONCESSIONS PARTICULARLY IN NORWAY**

PPP constitutes an important variation of the concession model, mainly for non-reciprocal projects, exemplified by jails, schools and hospitals (the three categories of scopes of the initial version of PPP, called PFI in the UK). However, concession is still in use, for reciprocal scopes, such as highways, ports and airports. Of course, in legal orders of the UK and the USA and according to a part of the scientific

theory, concessions are considered along with the PPP alternative. Anyway, both types of public contracts constitute the so-called “alternative contracting out” phenomenon. The main advantage of PPP method against the traditional method for public works consists in the fact that the public partner takes advantage from the involvement of the private partner for a long-term or at least mid-term period, having to do with the operation of the (usually non-reciprocal) project.

For the time being, in Europe PPP are most common in certain geographic regions (UK, Spain, Portugal, Italy, Germany, France), not having expanded as much as expected in the 1990s when the term was first put forth. Even today, that there is not one accepted model or even definition besides the loose definition of a cooperation between public authorities and the world of business (European Commission, 2004), the advantages are unequivocal; know-how, experience and practice sharing; maximization of the use of skills belonging to the private partner; optimizing the outcome given the funds or ensuring more funds through the participation of the private sector; increasing the transparency of public spending or even releasing state funds for other purposes; risks allocation.

Among the negative aspects of PPPs are cited the time needed to assess the final outcome, any legal or accounting impediments, the relatively inflexible character of the model in time, and most importantly the compatibility of the sectors involved in each project.

Governments have limited financial resources to allocate for improving public services and infrastructures and this is what led to the PPP model. Currently, PPP activity is not particularly high in Norway; nevertheless, this model is spreading geographically, across Europe, as well as thematically, over new sectors, giving a push to the development and completion of necessary infrastructure, while it releases state funds for social uses.

Commercial growth, continued rise of demand by Asian markets and the subsequent need for faster transport, combined with the environmental conditions and the progress of “ice technology”, may constitute an incentive for the wider use of PPPs in Norway in the hinterland, the coastal regions (upgrading, expansion, construction of ports) or for activities at sea (e.g. extraction platforms). More generally, the European Investment Bank expects investments in the fields of environment, transport, energy and research infrastructure for the years to follow.

It is very important that Norway is nowadays endowed with another region (Barents) for its activities, besides the North Sea and the Norwegian Sea. Should natural resources extraction start systematically and in a wider region by more countries, there will be a need for LNG carriers or even tankers, in addition to the development of the region, which would in turn create more traffic. Infrastructure is a necessary prerequisite for economic growth and will play a key role in maintaining competitiveness vis-à-vis the dynamically emerging economies.

Norway has proved its efficiency in investments and infrastructure with the long-term commitment to the hydrocarbon production. Its economy is successfully a mixed one, with important sectors being controlled by the state. In order to cope, however, with the increasing competitiveness in the region, more steps should be made in this direction. PPPs' future depends on the evaluation which is yet to follow (positive feedback). Nevertheless, the environment is friendly, also taking under consideration the ranking of the state at the corruption classification (Transparency International, 2013). So, participation of private capitals can therefore be encouraged.

## CONCLUSION: THE ARCTIC, A "CENTRAL" OCEAN?

The Arctic is a delicate ecosystem and a complex environment. Until quite recently the resolution of issues concerning this region was definitely not among the priorities of the coastal states, given that the region was permanently frozen and thus unapproachable. However, climatic data have changed what was taken for granted and the Arctic has been gaining importance due to its shipping routes and natural reserves (oil and gas exploration), mining operations, hydropower development, military advantages etc. Development attracts tourism at this remote part of the globe. High demand and carbon prices along with energy security unrest during some time period would justify the need to explore new energy sources and the costly and time consuming infrastructure the Arctic needs. Due to these new routes, maritime traffic is expected to increase in the region, making the passages significantly more important in economic terms. Radical changes are not expected any time soon, but the motives of lower transportation costs in combination with exemption from piracy high risks, of less time and of fewer emissions are far from negligible, therefore coastal states need to be able to host this traffic and reap benefits. Norway, a state with a strong presence in the European market and at the top rankings of the exporting countries, can use the PPP method to exploit the opportunity of attracting ships to its ports to become an Arctic hub. Despite the difficulties and the challenges of cooperation between such diverse partners, the expected benefit is too great to ignore. In the years to come, the Arctic may become a "central" ocean, given the geopolitical, environmental and economic stakes. Directly concerned countries, like Norway, need to plan ahead so that they won't be left to follow puffing the leading actors, either state or business ones.

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The Greek word for Freedom ("Ελευθερία") etymologically signifies the coming motion, so the faculty of moving from place to place. So, the physical faculty of transport ties in with the legal faculty, namely the fundamental right, of Freedom. As a result, a "new" Ocean emerges, the Ocean of Freedom, historically exempted from international law crimes against humanity, such as piracy attacks. The great challenge for international community is to promote the Ocean of Freedom, being anyway a spot of



“high seas” according to the International Law, even against the five nearby states, to the “Bridge” (“Pons” in Latin) of Safety and Sustainable Development. All states involved, let alone the superpower of Russia with recent cases of bipolar expansionism, should comply with this diachronic rule.

Last, but not least, Norway, a country ruled by Nazi empire for its potential use for nuclear energy in the Second World War, has a major motive to contribute to an environmentally friendly, peaceful use of the Arctic. Ice melts, do friendships emerge?

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## WEBRELATED BUSINESS COMPANIES STRATEGY FOR NEW CUSTOMERS

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### ABSTRACT

This paper provides a study on web related B2B (Business to Business), B2C (Business to Customer) evaluation of strategy and methods for maximizing (expanding) the number of customer among the people (i.e. internet population), using cycling process externally for internal process of strategy which explains business exploration and agility, and online consumers their compulsive buying behaviour with a new strategy to capture them in large number. The web based industries are web based companies and web related companies, we concentrated on web related company through new innovative method called B2P (Business to People/Public) a schematic approach strategy diagram of B2P, and with external Process of strategy.

The B2B and B2C (Business to Customer) used by enterprises in peer to peer process is based on a qualitative approach, our sourcing of data has been carried out through secondary sources (paper, articles, open source).

The findings are with new schematic diagrams designed and drawn by us with an idea and proposal and approach strategy for attaining people interest in the online industry specially concentrated as example on online book selling company.

The originality of this paper called concept B2P is from different sources, examples, online articles and built on industry leaders advice through "linkedin.com" and web blogs.

**Keywords:** *strategy, B2P, branding, internal process, online book company or industry, web related, web based, costumers , external cyclic process (data collection).*

### INTRODUCTION

This article attempts to evaluate and investigate the steps of technology strategy in online industry trends to attract people to become a customer, especially in the area of online business (Vrontis and Thrassou, 2007) web related and web based companies, technically so called e-commerce firms, and in their new strategies in the changing (Sia and Lee, 2006; Mandelli, 2000) the idea world for better

future business. The web based and web related companies generates each years on average 1.2 million jobs, they are small and medium enterprises with much high field business in different sectors.

After the invention of internet, day by day, the number of user are increasing as per the reports till 30th June 2012 the population 2.405.518.376 (<http://www.internetworldstats.com/stats.htm>) and business expands in to multi domain sectors. The enterprises use today a web technology and sites for better feasibility of business, we would like to introduce B2P (People/Public) concept in a highly regulated industry is the web related technology industry by innovators and risk takers who understand that tomorrow's success relies on today's relentless challenge of the status for future business based on B2B and B2C. We are introducing a bivariate broad perspective B2P concept, which evaluate and invent a new strategy on cyclic process which explains business exploration and agility and online consumers their compulsive buying behaviour with a new strategy of capturing costumers in large number.

The web based enabling technology helps the web related companies to generate most of the percentage in the business online, we will discuss the credibility and trust in online companies and new strategy to brand making like Amazon.com . The e-commerce industry is widespread importance of e-branding, prevalence of collaborative and customer-centric e-brand building strategies including co-branding and affiliating with established online and offline brands, distribution partnerships, content alliances and personalized e-mail contacts. The internet companies (Eisenmann, 2006) also seems to have employed a variety of traditional techniques.

The proposal is provided with idea of new concept called B2P (People /Public) which would support the expansion in numbers through cycling process of data analysis and by new strategies, and attracts the people to become a customer in web based and related companies, when it comes to web base they more into technology and transfers in to business for web related companies (i.e. we based companies enables, platform for new business enterprise), so, we would like to concentrate more on web related companies example online book seller and document article business, we are trying to focus what inspired to shift in strategy from B2C, B2B a new trend approach B2P with schematic diagram and strategies.

The research approach is based on qualitative methods, starting from a single method approach. The research is developed according to the study of international literature and from blogs of industry leaders.

This article has the following structure, from introduction, the section one provides a literary review of methods used to evaluate web based and web related companies, particularly, the study focuses on B2P (People/Public), it discuss in later section about what measure and data collected as empirical

evidence how the literature are, then the research approach explains what are the steps we gone through to write a finding with schematic diagrams with new concept of strategy B2P and the last section includes conclusion with the limitations of the study and suggests future research.

## LITERATURE REVIEW

Many authors wrote about the internet based companies and strategies, after careful review of articles in the internet and few authors statement, unfortunately, first-generation e-commerce strategy (Vulkan, 2003) books were long on vision but short on detail. If the customers are moving online whole information technology (Warner, 1987) investment paradigm must shift, we tried to structure this widespread strategy problem for attracting people, to become a customer (with example of online book selling company development). Hence, the proposal is to provide a study and new way of categorizing the conceptual customer and other people to expand the business with strategy. The concept called as B2P (Business to People/Public).

The "Bill McChesney" IT Executive, from Large federal systems integration firm says while online consumers are less concerned like "sending your clone to work" or "outsourcing your exercise" people voted for cloud because of it possess shift to infrastructure transparency in which not to think about servers and storage give perfect solutions. And the traditional consumers about firm location maybe more concerned about unobservable quality, and to signal this, online retailers rely more on advertising than traditional retailers, the imperfect price competition may arise because of vertical product differentiation, incomplete consumer awareness and near-perfect information exchange between retailers.

In online book industry the 100% profit per customer /consumer electronics/appliances Books Groceries Apparel Amazon trumped its rival once more by providing ratings of individual book reviews, so, yet everything they do in a virtual store cannot tell the online retailer, then how to trust online money transfer and company credibility, and if so, people buy books, but these questions always raised to the online company amazon.com. The past case studies and reports posed a notion of fraudulence in the transaction in the sense of money and data management.

The revenue data for the online book market reveal that consumers respond to advertising and website spending rather than low prices (Zott *et al.*, 2005). Lim *et al.* (2006) says the trust in the online trading is based on quality of service, and if so, the customer will buy the goods evaluated through an empirical study of trust-building strategies. And the Greenfield (2001) explained posing approaches toward the business online in the prostration, the gaining is important, people are in N number it is ocean how much you grab, how much you gain in end of day is branding.

The leading-edge online tools in communicating their key to e-brand values and promoting their online platforms, considering for example in the case of online book selling company, what few people know is that the first online book selling is not amazon.com, the other was started before, but failed in reaching potential customers or not into globally and stacked only to the regions, where trend and strategy missed led them to be behind the competitors.

## RESEARCH APPROACH

This qualitative research approach (Myers, 2013) is centred on the structural management of web related companies and web based companies for gaining customers with B2B and B2C strategy. The international literature on this topic is analysed.

Starting from the general understanding and data collection approach and strategy, data acquisition (Yin, 1994) was achieved through secondary research sources specified as follow:

- scientific books and articles;
- database such as Google scholar and e-marketing companies;
- schematic diagram's (internal and external process).

The application of new B2P concept and schematics diagram's for representation as well for strategy to attract People/Public to become a customer by internal and external process. The proposed research findings coming from a schematic diagram and references form the scholars article empirical application a new idea of B2P (continues cyclic process for customer gaining) strategy, marketing (Mandelli,1998) utilizing methods through schematics diagrams.

## FINDINGS AND DISCUSSION

**The concept of B2P generates a coherence and brought up base form B2B, B2C, and the key point for webs based companies and web related companies business established competitors to remember that innovation involves two essentially different activities coming up with a new technological, strategic (Burgelman and Maidique, 1988) or productive idea and then creating a market out of it. For an innovation to be successful, both activities have to be effectively coupled, but there is no need for the same organization to do both, one company may come up with a new and disruptive way of playing the game and another may take the idea and run with it. The findings section would explain how the strategy utilities and options are explored to grab most (Public) of attention.**

The web based companies are crucial role in advancements, the online enabling tools makes user to be free moving and hassle free surfing with more optional and fast process obviously the big dealt in the online market in web based organization is "Cloud Technology".

We consider the next big trend after cloud computing might be PAAS is a Platform as a service, enables to consumers more on controlling of what and where they publish their info, and businesses want to manage subscribers and advertising recipients as discrete persons, rather than as a set of email and phone contacts that might be overlapping, and might be peercling, is next big revolution "P2P plus Cloud " once we move all critical systems to the cloud, we will be totally dependent on having network connectivity that would lead business for longer motion and time.

This paper concentrate much on web related companies, we would like to present an example of online book industry who sell and market for publishers, the trend, theoretical strategies are meant to be common for most of domains.

The revenue data for the online book market reveal that consumers respond to advertising and website spending rather than low prices as the market size expanded during 1997–2001, these endogenous sunk costs escalated, advertising-to-sales ratios and market-concentration ratios are much higher than for traditional book selling, using price and demand information for individual books over a number of weeks, we can find counter cyclical and cross-sectional price variation inconsistent with perfect price competition.

The two conflicting predictions have emerged regarding the effect of low cost information on price, first one states that all internet retailers will charge the same low price for mass produced goods. The second states that internet retailers will differentiate to avoid intense price competition (data collected in April 1999 on the prices of 107 books) in thirteen online and two physical bookstores, we find similar average prices online and in physical stores and substantial price dispersion online.

The best formula of the buyer always values in the result of benefits which mines from costs, since methods explains how the customer are, we started to concentrate on broad prospective in N (infinite) number of people, then we come across a new split of people who are customers and might be customers and visitors by category, in order to increase number of selling irrespective of ages, considering the book online store with different category book from arts to technology (end to end type).

The internal process split diagram 1 explains the basic split of people for business and parallel the external life cycle with measurement analysis regularize and make understand for change strategy (in order to gain more customers) in the diagram 3.

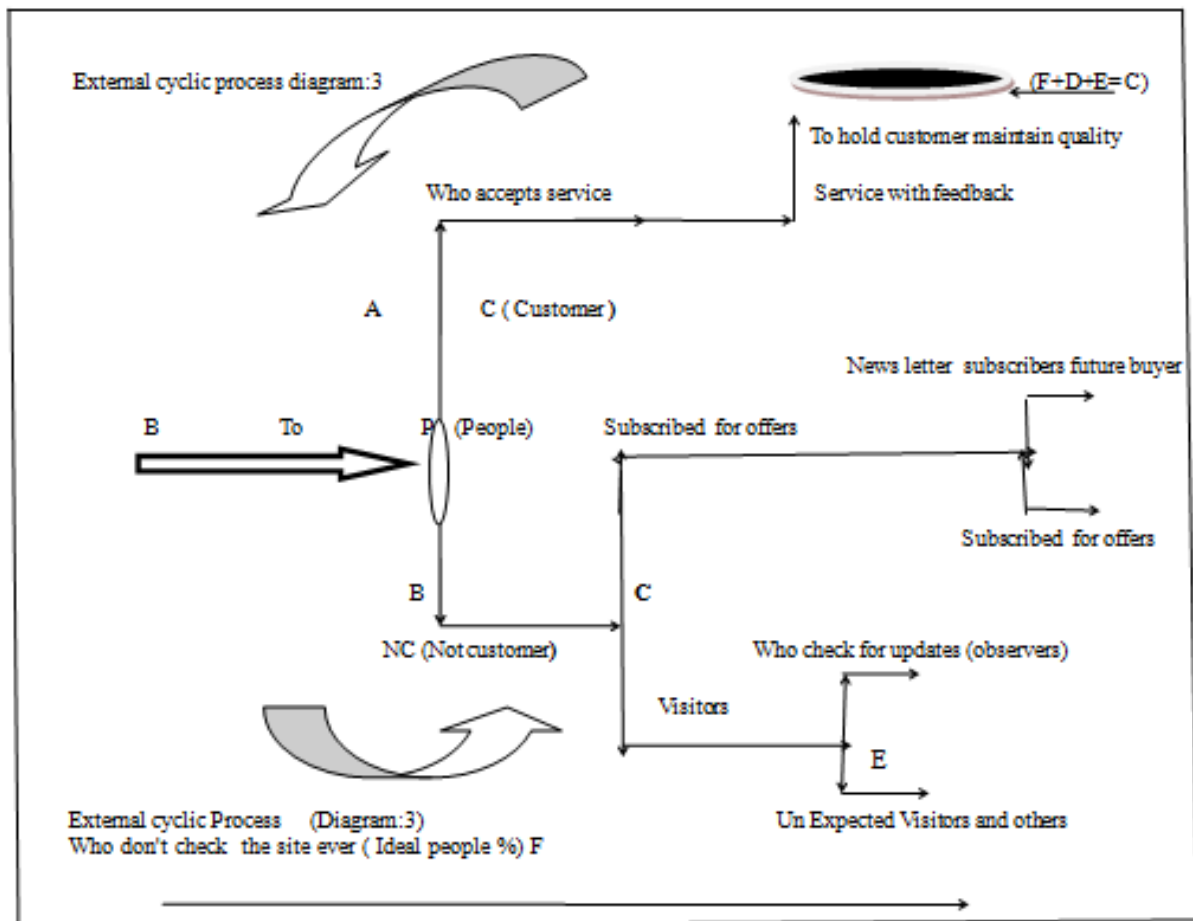


Diagram 1. Internal Process Split (Methodology) B2P

The B2P internal diagram (predicted split diagram.1) for future strategy split into A, B from people, where the A split line represents who are already a customer (all the existing customer comes from people he/she might be a enterprise/institution representative or a small book shop for bulk order or individual customer) in A category. By keeping up offers and long-term subscription, coupons with special delivery package would benefit to sustain customers long time. The category B represents NC (not a customer's) but the they can be active as register user and visitors.

The registered users are from the non customer in terms of buying books online, we have sub clarified registered users as news letter subscribers and subscribers for offers who do occasional transactions. The news letter subscriptions are a good idea which intended to be part of companies announcement and latest deal and but the not interested buyers are 50 percent, and since the subscribers of offers and newsletter subscribers are similar in theory but they are different in action, the subscribers for offers are people who tend to be potential buyer, when they are need of a rebates and coupons issued on purchase.

In the category of visitors, the people are, who impressed by variety of books in online store always wanted to be up-to-date about their favorite book, then after sub category are visitors sub classified as



observers (might be general people or competitors) and people who want to keep in comparing the books published and who wish to be future subscriber a slow and study mood people fall in to this category.

The unexpected visitors and others are directed through adds (or) unintentional clicks, or people who are academic researchers and students searching through Google or Yahoo search engines, and who don't check the site ever ideal people large in percentage category " F", we try to evaluate and capture the people through cycling process and schematic diagram and we are going to evaluate these people under objectives, in order to make them as online buyer.

Let us assume by taking few indicator, the registered user are sub category register, the inbound marketing strategy an effective website strategy includes several components beyond the obvious. Like lead nurturing email campaigns, down loadable white papers, targeted ads based on visitor engagement, segmented newsletters, and more. Each strategy should be carefully considered based on the complexity of your sales cycle.

We understand how much education is required to reach close a potential customer likely to depends on education and the marketing plan. The product relatively simple and volume based, the customer likes product. The product require complex integration (or) contact from a sales associate and has to check customer care standards and antiquities; always better to checking the numbers of consumer segments does company target.

Writing a book online is a business which is reviewing the articles or books by others and increasing number of hits resultant in to sponsorship, branding for future, increasing brand value even by not selling or not served the direct service (net work sites, knowledge sites) might have a chance to result business mind run and long runs by turning the non customers in to potential clients. The Europeans (Zott et al, 2000), buying on-line to continue exponentially from 13.5 per cent of the online population. Through the book reviews and discussion forums which are a form of virtual community a relatively new online bookstore called iBook, and how web based markets online auctions and electronic exchanges can overcome debacle calls trust with unknown people for trading money and for books and parallelly gaining the customer through the strategy we would see in the predicted strategy diagram.2.

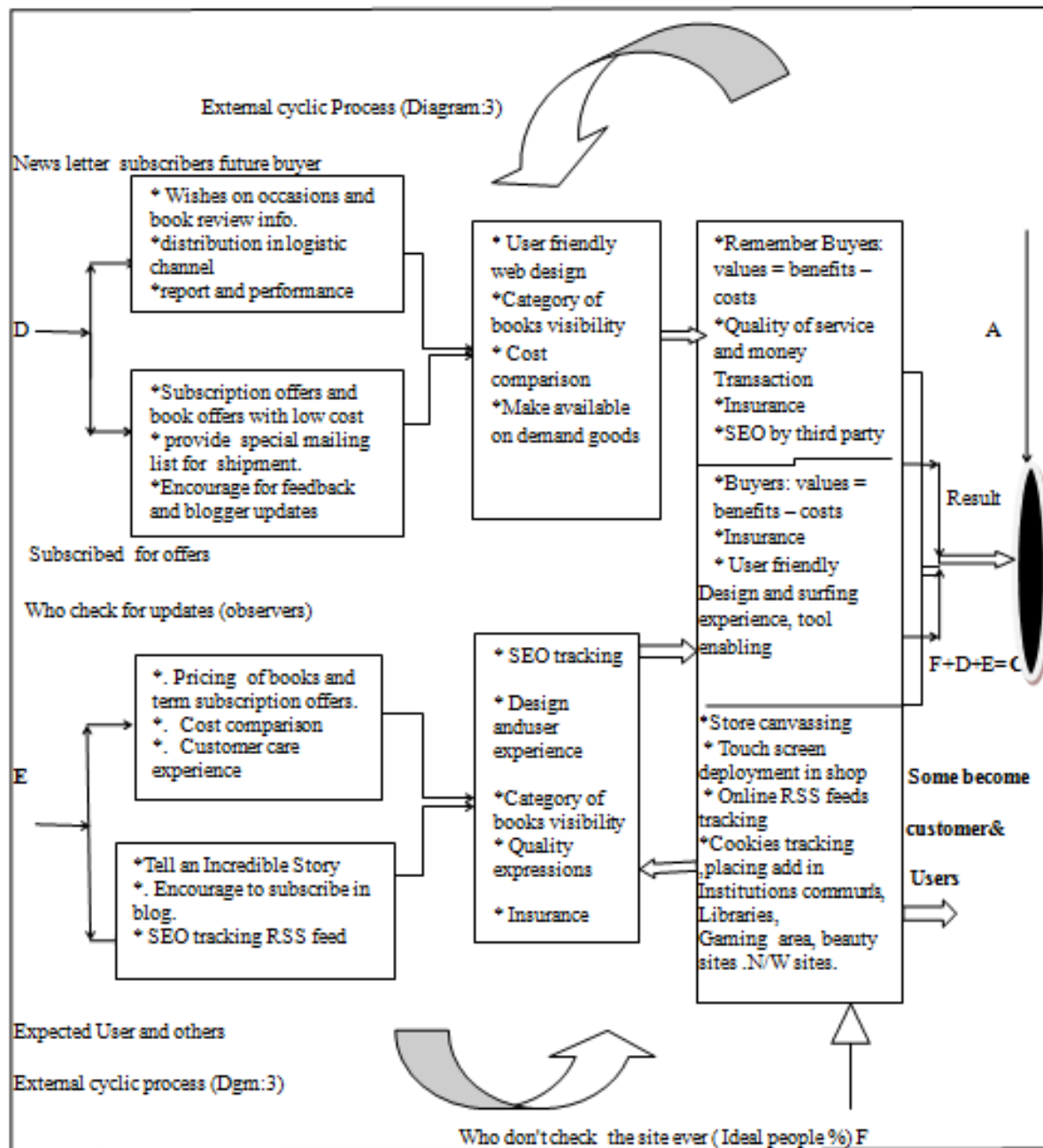


Diagram 2. The solution of Diagram 1

Literally we are presenting above an indirect form of 4Ps for our business strategy, which are Product, Place, Price, Promotion, but by preference order according to the category of people fall in. We are going to discuss the resulting solution and topics motioned in diagram 2 from D and E step by step strategy in different order.

The wishes on occasions and book review information attract subscribers and make them feel comfort and trusted in relations with customer by wishing in every accession, and special movement sharing a review will bring the companies to transfer registered customer in to buyer "customer comfort is money".

Then the logistic channels of the distribution, "Scribnet" is the example for review in book stores, permit to people to upload their documents and spread a word across about customer books and articles, reporting a performance of the new product (books) and company policies to reach higher customer satisfaction and new launches would increase the satisfaction and trusted level and another step would be subscription offers and book offers with low cost like offering a lifestyle membership, by providing the highest form of maturity membership that gives access to many different products and experience beyond own product. And the next is contracting with companies who want to extend beyond their core product offering like offer an ecosystem of suites and products companies in tenuous markets, example Peugeot's Mu program gives consumers access to cars, bikes, buses, vans and more for rent on deduction through the online book store, and announcing an offer on separate mailing list who are in contact with the company longer than a year and encourage for feedback and blogger updates.

The user friendly web design and cost comparison is the best idea of attracting people, most of website in the web related companies like online book selling company don't concentrate on friendliness of website and maximum percentage chances for user satisfaction to word custom web environment is unsatisfied need to utilize latest technology pro dynamic website design, and the cost comparison of on line book aligned with the rate of current company and with competitors would be the better option for new orders and increase in the sales.

The after contracting and offers would pass-on to the availability of realization of on demand goods, if you have a high-cost, or high-consideration product, low usage product, considering offering it on demand, through a shared access model like amazon.com. The legitimate offer always be pricing of books and term subscription offers change by time under competition are fixed pricing, dynamic pricing, bartering but always the buyers principle falls under value is benefits minus costs.

After pricing and designing the customer care experience is the most important part of query transaction, information purpose about books derives most efficient, and TAT (turnaround time) generated customer care companies appreciates with the higher inflow of people to the company for business (whether is maybe through e-mail or tail call) all about the antiquities.

Always the first step to gain a customer from people is tell them an incredible story, no one cares about features until they understand the solution, whether company creates software (or) sells books online, or point of sale terminals for retail outlets it's the results that matter, but delivering truth and realistic things important and making a blog for the people who want to visit and update and discuss about technologies authors, anything which would gives a scope to communicate with other users is a better option of branding the business.

The one more option explained in diagram is SEO tracking and by third party, the search engine optimization is a new way of business by number of hits and first in first out formula believing system, how many clicks and how many times searched in the search engine makes the company to appear in the top list for reputation and for more opportunities to advertise optimizing the website more feasible standards. However, in the companies the idea of giving contract to the third party depend on the revenue and market share of the online book company. The attractive website may appeal to a broad audience, it's critical to test, and re-test website pages in an effort to optimize user experience and results.

The quality expressions is one of the factor that focus on quality of service and books, we know teams used to spend thousands of hours writing pages of website content going into excruciating detail about every feature available, sadly this instinct will dilute value proposition, and slow the buying process dramatically, keeping things simple will build trust and understanding early in the buying process.

The last section but not least important option creating people as customer from ideal people "F" category, the ideal people are most important to the market, where a need of bringing these potential buyer from physical to online, we choose traditional and few programmatic step to attract and make them internet friendly for purchasing books online and store canvassing and general digital marketing, the example canvassing in the electronics shop about electronics book on free touch screen display and encourage offers on buy. A lot of careful thought goes into the planning phase of digital projects prior to the design, or development work begins, this process is essential for strategic design that achieves business objectives, and follows optimal user experience, marketing is the predominant part of strategy (Rappart, 1979), the past writer missed posing a strategy where online book company can make a contract, to the different filed related shops and libraries, beauty salons and gaming points with setting up of touch screen web panel for people.

This experiment results into huge number of customer and generation of money by selling books, then the user starts to equate with internet and screen environment, slowly attracts toward to the ads on the screen and book display, online RSS (Really Simple Syndication) feeds cookies tracking, placing add in institutions commune's, libraries, advertise in gaming area, beauty sites.

This kind of tools help to improve performance and increase the satisfaction internally which would result into external customer increase to the company, both consumers and service providers take advantage of the many benefits it has offered. The adoption of virtual applications, architecture and service orientation computing are some of the factors that should be considered when thinking of cloud computing. We predicted and drawn a external cyclic process diagram. 3 which dealt with the market research on public data and behavioral analysis to find potential consumer form people, it's a continuous process irrespective of time.

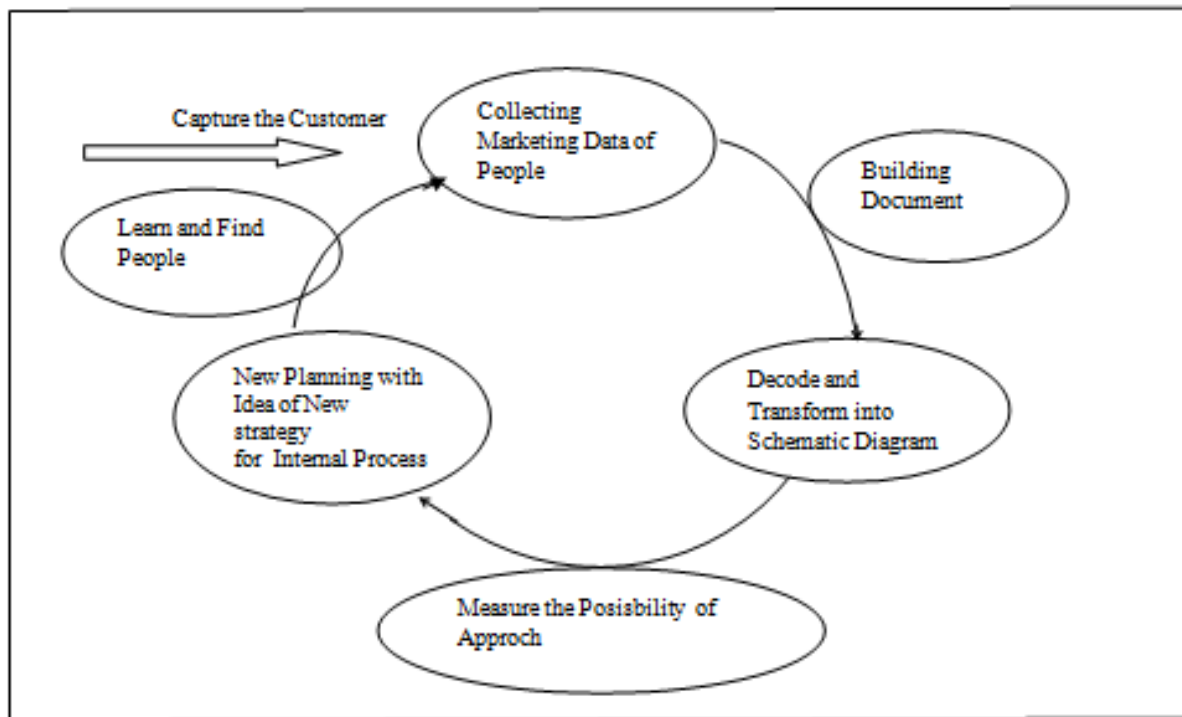


Diagram 3. External life-cycle process

The cyclic process follow and support the internal process to gain new customers from the N number of people. External process starts with collecting market data of people who are internet users and Ideal non internet users using tools and market research, human resource and building documentation, structuring appropriate data from bulk according to objective set for first cycle and to transfer in to decode an transfer process where data into strategy, reaching to people of specific slot or set area compiling to measure for approach, where the strategy measured with regression models, into pure graphical representation, after approach with plan on line marketing through tools and agencies, until reaching objective to hold on more people, further migration of process to the Internal Process, it makes a new strategy based on external results.

## CONCLUSIONS

If we want to sell toilet paper then we could start a toilet paper business right now online and if we truly kicked on to notch could make a living. My point is it's not what you sell as much as you believing that it will work, work hard, and work very smart to make it happen.

In the paper we tried to evaluate online business growth on base of new strategy gaining in long term by cyclic order and with collective analysis of data with management. We gave notions how the strategy can be further divided and evaluated for trade in the results to the business. The strategy,

exploration and agility discussed how the people are and how to capture them from different platforms, and the online consumer compulsive buying behavior analyzed.

But the paper provides enough notions and sub categories for the idea purpose, more incite work can be possible in future with web related industries connecting with B2P( people, that means increasing the number irrespective of age and specific area of interest) expanding till to end through step by step evaluation.

In light of the consideration made, it is appropriate to point out that this research is based for further that will address current trends in the field of web related companies strategy for gaining people as customers with a new concept called B2P(Business to People/Public) under cyclic process.

The example internet based strategic idea of business, we have noticed a company for knowledge sharing on consultation who are joint experts in the field and employees of other organization, through money grows in parallel and on form of KPO (knowledge processing outsourcing) competitor without. hug set up as KPO. Example "Mavan " (www.mavan.com).

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## UPDATING ENVIRONMENTAL KNOWLEDGE THROUGH A KNOWLEDGE MANAGEMENT MODEL

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### ABSTRACT

A review of the literature confirms that a knowledge management framework which supports knowledge creation is required, particularly in those organisations having to deal with a changing environment. Socialisation, externalisation, combination and internalisation continue to be key processes for the creation of knowledge which enables organisations to successfully address environmental challenges. This paper examines the relevance and importance of a SECI model as an enabler of the processes of reusing and updating of environmental knowledge of an organisation. The research reported has confirmed that time is a key component of the implementation of a SECI model in organisations operating in a changing environment. It has been confirmed that such a strategy should focus on the reuse of prior environmental knowledge as a mechanism to establish within the organisation a context where new knowledge management processes are understood and adopted by employees. The paper also examines the relationship between environmental knowledge and organisational performance indicators. These relationships are examined through an empirical study of 87 companies in the Spanish hospitality sector. The results indicate that environmental knowledge at a given time (T) is found to be significant in predicting the knowledge management processes at a later point in time (T+6).

**Keywords:** *SECI model, environmental knowledge, hospitality industry, performances and time.*

### INTRODUCTION

Environmental knowledge has become one of the most important intangible assets for organisations in the current competitive environment (Po-Shin & Li-Hsing, 2009). Environmental knowledge can be defined as the degree to which an individual or organisation becomes aware of and concerned with ecological issues (Amyx *et al.*, 1994). Environmental knowledge may be thought of as comprising stocks of data, information and knowledge resources (environmental memories) that have been gathered and accumulated by an organisation by virtue of its knowledge structures (Chou *et al.*, 2005). While the relationship between environmental knowledge and organisational performance has been



addressed by several authors (e.g. Boiral, 2002; Boiral, 2009; Cegarra & Martinez, 2010), there has been surprisingly little empirical investigation of the effects that environmental knowledge can have on knowledge management process (and vice versa) over a period of time.

Time has traditionally been considered in the management literature as a constant rather than a variable, a belief Bluedorn (2000) ascribes to people in general. Furthermore, as Bluedorn notes, the understanding of time as a constant is deeply institutionalised, which suggests that most people, most of the time, do not even consider the possibility that time may vary. This suggests that one should speak of 'times' rather than 'time' (Purser *et al.*, 2005). In this study it is assumed that 'times' are sequential and enable first creating an environmental knowledge and then putting the upcoming environmental processes into a familiar context for members of the organisation. The question that arises is whether a knowledge management framework is needed to reuse and update prior knowledge of the environment and if so what can be done to face environmental challenges in the coming years (Cegarra *et al.*, 2013).

In this regard, the SECI model (socialisation, externalisation, combination and internalisation) provides a good basis to explain the adoption of new environmental knowledge (Nonaka & Takeuchi, 1995; Nonaka *et al.*, 2000). This paper aims to offer an empirically tested SECI model which helps identify how prior environmental knowledge in the Spanish hospitality sector may be reviewed and updated through the development of knowledge processes at a later time. In the conduct of this research, we have addressed the following questions: Does availability of environmental knowledge at a given time necessarily mean the use of environmental knowledge at a later time? How can hospitality companies update environmental knowledge resources? By addressing these questions this paper demonstrates that the availability of environmental knowledge at a given time does not necessarily guarantee the effectiveness of environmental knowledge at a later point in time.

The longitudinal study described in this paper involved two observations of the same variables over a period of six years (2008 and 2014). The proposed theoretical framework is presented in the following section. Details of the survey which was used to collect appropriate data to test the model is presented in section 3 and the results of testing the models are detailed in section 4. The results and managerial implications are discussed in section 5 which is followed by our general conclusions in section 6.

## THE PROPOSED RESEARCH MODEL

### *Connecting the SECI model to environmental knowledge*

Sustainable development is one of the world's most important priorities in order to attain the well-being of mankind (Nouri *et al.*, 2008). In the Spanish hospitality industry the growing interest of tourists in the environment has led to the promotion of ecotourism, and with it the efforts to develop

strategies that focus on the environment (Brockhoff *et al.*, 1999). The concept of environmental knowledge has been invoked to characterise the way in which organizations align their strategic goals to sustainable development (Wernick, 2003). This means that organisations with environmental knowledge will know what can be done about environmental problems and they understand the benefits of environmentally responsible goals (Frick *et al.*, 2004). As Po-Shin and Li-Hsing (2009) suggest environmental knowledge involves what people know and are concerned about regarding the natural environment, their responsibilities towards environmental protection and the relationship between the economy and sustainable development.

One way to gain environmental knowledge consists of developing a continuous process of dynamic interactions between strategic goals and environmental challenges. As Martelo and Cegarra (2014) noted, knowledge in a firm emerges both from inside and outside the firm. By doing so, the SECI model may play an important role in the creation of environmental knowledge since it is a way of transferring knowledge to refine the knowledge existing within the organisation while also improving the effectiveness of its search and retrieval strategies. A key argument supporting the SECI model is that knowledge held by individuals is shared with other individuals so it interconnects to a new knowledge (Nonaka *et al.*, 2000).

Nonaka and Takeuchi (1995) suggest four dimensions of the SECI model, each playing different but complementary roles in explaining how knowledge can be created in organisations. While sharing tacit knowledge between actors is considered a socialisation process, tacit knowledge becomes explicit through an externalisation process. This conversion is due to a social process between groups and individuals (Nonaka & Takeuchi, 1995). While the ability to maintain the explicit knowledge within the organisation is defined as combination, internalisation happens when explicit knowledge transforms into tacit and thus becomes part of an individual's expertise. Therefore, internalisation means understanding explicit knowledge.

The creation of environmental knowledge supposes, in this case, the reactivation and development of new information about events, trends, and relationships in the external environment of the organisation. For example, if there is no prior knowledge or history associated with environmental issues, then a failure to act towards achieving the strategic goals of the organisation may result in a search for environmental knowledge at a given time (T). This, in turn, fosters learning and therefore the absorption of new knowledge by employees (Choo & Auster, 1993). As Boiral (2002) points out, this knowledge includes employee compliance with new practices. Some of these new practices include the exchange of information and sharing of environmental concerns (Fryxel & Lo, 2003), the acceptance of constraints related to the prevention of pollution (Cordano & Frieze, 2000), and collaboration with technical services to develop cleaner processes (Aggeri, 1999).

The above considerations have led us to frame the first hypothesis of our study as follows:

*H1: The SECI model at moment ( $t_0$ ) has a positive effect on environmental knowledge at moment ( $t_0$ ).*

*Connecting environmental knowledge to the SECI model over time*

As competition intensifies and the pace of change accelerates, it is likely that aspects of environmental knowledge (e.g. environmental routines and procedures) will change over time, requiring the modification of some knowledge structures (Aggeri, 1999; Brockhoff *et al.*, 1999). Prior research has also shown that the effect of environmental initiatives on business performances can vary substantially in a turbulent context (Cegarra *et al.*, 2013), such as the Spanish hospitality sector during the period we have examined, under this framework it is necessary for hospitality companies to update what they know about environmental issues (Cegarra *et al.*, 2013). It should also be noted that a set of authors are focused on time as variable to be taken into account. For Gist and Mitchell, (1992) an individual's level of self-efficacy can be expected to change over time as new information and experience are acquired through direct experience with the task, performance feedback, and other factors. In this vein, Adam's (1990) work shows, that "causal time" is seen as one-dimensional, structured in terms of past ( $t_0$ ), present ( $t_1$ ), and future ( $t_n$ ).

The above considerations lead us to argue that once prior knowledge and skill are assessed at a given time (T), there is a range of potential responses by employees, which are determined by the type and characteristics of the challenges. In addition, impact and importance of environmental knowledge varies over time and prior environmental knowledge can soon become outdated or obsolete at a different point in *time*. There may be a number of different ways of understanding the concept of 'time'. In this regard, Crossan *et al.* (2005) focus on three characteristics of time, namely;

- a) Time as a trigger for change. As Gersick's (1991) work shows, groups with very different characteristics change their behaviour when approaching the middle of the span of time they have to perform a task;
- b) Time acts as a coordination mechanism for change. Time creates a shared calendar for change and, thus, serves to schedule activities and to maximise their synchronisation (Hedberg *et al.*, 1976); and
- c) Time as a resource for change. These considerations lead us to argue that 'time' provides organisational members with the temporal space they need to reflect on and conceive prior environmental knowledge (Tyre *et al.*, 1996; Eisenhardt & Brown, 1998).

Our focus is the relationship between casual time and environmental knowledge. For the purposes of this paper, we suggest that environmental knowledge is a process that happens over time, and takes time to update it (Lei *et al.*, 1999; Purser *et al.*, 2005). In this 'from-to' causal structure, whatever arises in the future has its origin in the past (Tulku, 1994), that means that hospitality companies which are responding to a series of new environmental challenges are forced to 'think and act over time'

(McKenna, 1997), and demands for instant responses frequently means relying on prior environmental knowledge (Purser et al., 1992). Therefore, when the rate of change itself is steadily accelerating, this means that it becomes highly problematic whether the environmental knowledge needed to increase company benefits can be accessed in a timely manner (e.g., Rondinelli & Vastag 2000; Zhang *et al.*, 2000).

Over time environmental issues and management challenges are likely to change (Bohdanowicz, 2005). An example of this is the emergence of new environmental regulations which may go far beyond the current company's plans to issue new standards for greenhouse gas emissions. As these environmental regulations change, it may become necessary for the organisation not only to exploit their prior environmental knowledge about these regulations but also to update (i.e. replace) such knowledge. Hence the ability of a firm to combine prior environmental knowledge with new one over time is therefore essential if a business is to align its processes, products and services with new challenges to face changing environmental issues. This is where a good knowledge management program such as a SECI program should distribute the new acquired information amongst all the employees involved in environment-related activities, codifying and storing such information for future uses, retrieving past successful environmental experiences, but also being able to continuously renovate past environmental experience with new acquired knowledge (Carmona-Moreno *et al.*, 2004). As a consequence, the SECI program at a later point in time acts as a facilitator in the relationship between EK at a given moment and EK at a later point, since it means that new environmental knowledge can be socialised, externalised, combined and internationalised using past knowledge and also used in the innovation process.

Therefore, we propose the following hypothesis:

*H2: The impact of environmental knowledge at moment ( $EK_{t_0}$ ) on environmental knowledge at a later moment ( $EK_{t+n}$ ) is positively mediated through a knowledge management program ( $SECI_{t+n}$ ).*

#### *Connecting environmental knowledge to organizational performance*

The Spanish hospitality industry is a very complex one and requires intensive use of knowledge resources to successfully operate in a competitive market meeting the increasing needs of its customer (Claver-Cortés *et al.*, 2006). In hospitality institutions, staff need appropriate and up-to-date knowledge to face a number of environmental challenges, including the need to implement new customer engagement strategies such as those based on social networks), increasing customer demands and global competition to reach and recruit customers (Chandana, 2001). These considerations lead us to argue that updated environmental knowledge plays an important role in the improvement of organisational performance since it facilitates a situation which, when something is being done wrong, the organisation can change to quickly resolve it (King & Lenox, 2001), which in

turn may help hotels achieve their operational full potential (Cegarra *et al.*, 2010).

As the customer profile changes (e.g. physical location, behaviour, environmental preferences etc.), it becomes an imperative for hospitality companies not only to revise and update the environmental knowledge but also to effectively use such knowledge. Using up to date environmental knowledge have a positive effect in the public's perception, which is likely to result on more visits to the hotels and benefitting from the use of their installations and services (Carmona-Moreno *et al.*, 2004). As Boiral (2002) noted, the existence of environmental knowledge helps both companies and customers obtain beneficial results. For example, hotel operators encourage their guests to participate in new programmes to reuse their towels, which benefits the environment but also help reducing laundry expenses. Therefore, hotels equipped with up to date environmental knowledge can provide a more competitive way to deliver services, which could enhance the public perception as the company is seen to be socially responsible (Erdogan & Tosun, 2009).

Hence, we state that:

*H3: The existence of environmental knowledge will determine the extent to which the company achieves better organizational performance*

Taking into account all of the above, this study proposes the structural model shown in Figure 1. In summary, a firm with a SECI program possesses a key capability for the updating of environmental knowledge. To manage prior environmental knowledge effectively, firms must put in place a SECI program at a later moment that enables employees to update their assumptions and then replace new or modified environmental knowledge. Finally, firms with a SECI program will be able to use up to date environmental knowledge in order to improve organisational performance.

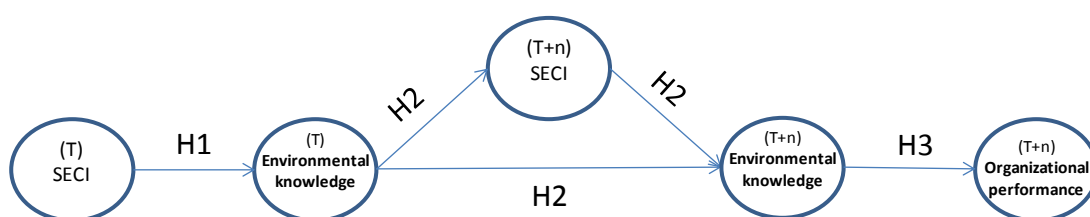


Figure 1: *Theoretical model*

## RESEARCH METHOD

### *Data collection*

The focus of the data collection process was the Spanish hospitality industry, in particular the section dealing with hotel operation and management. Hotel operation and management is a very relevant sector within the Spanish economy (Cadarsó, 2005). Spain ranks second in the world in this sector, both in terms of the number of travellers (behind France) and in terms of income from tourism

(behind the USA) (WTO, 2009). This industry reported 11.8% of the Spanish gross domestic product (GDP) in 2002 and 12.1% in 2001 (Claver-Cortés *et al.*, 2006). Regarding the employment generated by the tourism sector, estimates indicate that it usually absorbs 10% of the total employment available in Spain. From the total Spanish population, over two hundred thousand people worked in hotels and guesthouses in August 2003 (National Statistics Institute Information Bulletin, 2003).

The reasons for choosing the Spanish hotel operation and management industry were twofold: on the one hand it is very important for the economy; on the other hand, it is a sector facing an increasing level of environmental challenges. For example, hotels have to operate in an environment dominated by high fixed costs. The management often has to deal with issues related to staff wages, significant utility bills and the expenses derived from maintenance of rooms and facilities. Managing a profitable hotel becomes a challenging endeavour, particularly in a period of recession. In this regard, 2008 was the year when the tourist industry did not contribute to the growth of the Spanish economy for the first time ever. Just the opposite, the income generated by the tourist industry in Spain decreased in 1.1% with respect to 2007 (National Statistics Institute Information Bulletin, 2008). Also, the Spanish hotel operator industry is an appropriate setting for an investigation of knowledge management practices and their impact on environmental knowledge. This is because companies within this sector have to face up to highly dynamic environments, strong competition and rapid advances in technology. As Carmona-Moreno *et al.* (2004) state, the environmental policy in hotels is fundamental for their results, as these depend, essentially, on the environment in which hotels are located. Thus, the preservation of the environment becomes a crucial factor influencing hotel operations. This preservation therefore requires an intensive use of new beliefs, norms, values, procedures, and routines.

The unit of analysis for this study was the company, on the assumption that aspects relating to the creation of environmental knowledge affect the entire organisation. Relevant data sets were collected through telephone interviews with the CEO or owner of the business using a simple structured questionnaire. We made use of a list of 560 Hotel Operators provided by the SABI<sup>1</sup> database (from the SABI Database based on the statistics for the year 2006) as an initial sampling frame. All companies were included in the CNAE-552 (The Spanish National Classification of Economic Activities 552) and had more than ten employees. Before conducting the surveys, the businesses were contacted by telephone by our team and invited to participate in the study. Potential participants were informed of the objectives of the research and reassured of its strictly scientific and confidential nature, as well as the global and anonymous treatment to be given to any data collected. In total, 560 companies were

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<sup>1</sup> Sistema de Análisis de Balances Ibéricos (SABI database) contains financial information for 520.000 companies (480.000 from Spain and 40.000 from Portugal). This includes public and private, Spanish and Portuguese companies, with up to 10 years of data, updated daily.

contacted by telephone and invited to participate in the study. A total of 245 companies agreed to participate in the first instance. These 245 companies were then contacted again for the purpose of data collection. Participants were asked questions about environmental activities carried out by their hotels and the learning processes implemented to create environmental knowledge in a context of intensive innovation.

Data sets were gathered in two phases, the first of which lasted two months, from early September to the end of October 2008. From a sample of 245 companies, 127 companies responded to the survey.

The size of these organisations (in terms of number of employees) can be described as follows:

- 41 of these companies have 10-49 employees,
- 59 companies have 50-249 employees,
- 18 companies have 250-499 employees, and
- 9 companies have more than 500 employees

This produces a response rate of 22.67% of the total number of companies invited to participate in the study and 51.83% response rate when we consider the companies which agreed to participate.

A comparison between companies which had provided a response and those that had not done so yielded no significant differences in relation to turnover, total assets or the number of employees, which suggests that non-response bias does not constitute a significant problem (Armstrong & Overton, 1977).

The second stage in the data collection process within this research was conducted six years after the completion of the first phase. For approximately two months, between January and February 2014, the same companies that had completed the survey six years earlier ) were contacted by the researcher. A survey was conducted and a total of 87 responses were collected, for a response rate of 15.53% of the total.

### *Measures*

Churchill's (1979) approach to questionnaire development was used. Scales were combined from several other relevant empirical studies with new items to make an initial list of 19 items distributed as follows: 4x3=12 of these measuring knowledge management processes, 3 focused on measurement of environmental knowledge and 4 items measuring organisational performance. The survey was initially validated by academics with expertise in organisational learning from Universities of Murcia and Cartagena (Spain) during the period of June – July 2008.

A series of telephone interviews were then conducted involving managers from a pilot sample of 2 leading Spanish hotels. These respondents were asked to indicate the reasons why they implement

environmental initiatives. All responses were related to economic reasons, e.g. conservation of materials or energy, adherence to industry codes or legislative requirements, decreased costs, process and product innovation. In fact, such initiatives were being used by businesses as communication tools to demonstrate their commitment to preventing issues which could have a negative impact on the environment. As a result of this pre-testing, we made some minor modifications based on the suggestions received. Specific issues relating to the development of the questionnaire and its related constructs are elaborated on below (see Appendix for a list of items).

- The final measures relating to the existence of knowledge management processes consisted of 4 items adapted from a scale designed by Lee and Choi (2003) to measure the constructs of knowledge socialisation, externalisation, combination and internalisation. Consistent with the findings of Lee and Choi (2003), items that addressed knowledge socialisation were interwoven with issues related to encouraging individuals in the organisation to track changing markets and share market intelligence with external agents. Also consistent with Lee and Choi's (2003) findings, items that addressed knowledge externalisation were interwoven with issues related to the encouragement of selected individuals in the organisation to transform their tacit knowledge of customers or experts into easily understandable forms. Knowledge combination items described the process of formalising and storing concepts into a knowledge system, such as databases and knowledge bases so that reconfiguration of existing information through sorting, adding, combining, and categorising explicit knowledge could be used to create new knowledge. Knowledge internalisation items were focused on the use of knowledge about environmental issues to develop plans and to the implementation of such plans.
- Previous studies by Boiral (2002) provide guidance in developing items to measure environmental knowledge. The importance of 'environmental knowledge' to cognitively diverse teams relates to enhancement of technical, administrative and social strategies through the accurate understanding of the information available to groups and where such information is located in relation to environmental initiatives. This acknowledges the importance of supporting policies, rules, reporting structures and decision-making protocols that encourage the introduction of clean technologies and approaches to reduce pollution that often leads to substantial savings of materials and energy.
- As the use of objective measures may pose some challenges to researchers while making causal inference from the historical data (March & Sutton, 1997), this study adopts subjective measures to achieve a more comprehensive evaluation of performance of the firm. In this



regard, several measures of business performance have appeared in literature and we adopt the growth-based measures proposed by Kaplan and Norton (1992), and Klassen and McLaughlin (1999) for sales, profits and profitability on total assets.

### *Data analysis*

This study uses PLS-Graph software version 03.00 Build 1058 (Chin, 2003) to conduct an analysis of the data collected. Using PLS involves following a two-stage approach (Barclay *et al.*, 1995). The first step requires the assessment of the measurement model. This allows the relationships between the observable variables and theoretical concepts to be specified. This analysis is performed in relation to the attributes of individual item reliability, construct reliability, average variance extracted (AVE), and discriminant validity of the indicators of latent variables. In the second step, the structural model is evaluated. The objective of this is to test the extent to which the causal relationships specified by the proposed model are consistent with the available data. For hypothesis testing, we used the bootstrapping procedure recommended by Chin (1998).

In order to analyse the relationships between the different constructs and their indicators, we adopted the latent model perspective in which the latent variable is understood to be the cause of the indicators. We therefore refer to reflective indicators for first-order constructs or dimensions. Three constructs in the model are operationalised as first-order reflective constructs (i.e. environmental knowledge 2008, environmental knowledge 2014 and business performance 2014), while knowledge management practices on 2008 (SECI 08) and knowledge management practices on 2014 (SECI 14) are modelled as second-order reflective constructs. With regard to the measurement model, we began by assessing the individual item reliability (Table 1). The indicators exceed the accepted threshold of 0.7 for each factor loading (Carmines & Zeller, 1979).

	SOC0 8	EXT0 8	COM 08	INT0 8	EK08	SOC1 4	EXT1 4	COM 14	INT1 4	EK14	BP14
SOC_1	<b>0.86</b>	0.42	0.48	0.42	0.51	0.54	0.37	0.47	0.43	0.53	0.27
SOC_2	<b>0.84</b>	0.43	0.42	0.48	0.60	0.71	0.36	0.42	0.50	0.64	0.36
SOC_3	<b>0.73</b>	0.44	0.34	0.61	0.28	0.41	0.43	0.34	0.66	0.22	0.15
EXT_1	0.48	<b>0.87</b>	0.49	0.65	0.53	0.46	0.60	0.47	0.54	0.48	0.42
EXT_2	0.51	<b>0.88</b>	0.40	0.50	0.51	0.51	0.76	0.39	0.46	0.44	0.29
EXT_3	0.29	<b>0.75</b>	0.36	0.32	0.34	0.29	0.71	0.33	0.24	0.26	0.23
COM_1	0.34	0.47	<b>0.91</b>	0.47	0.47	0.39	0.40	0.79	0.34	0.40	0.29
COM_2	0.54	0.48	<b>0.94</b>	0.46	0.60	0.58	0.45	0.88	0.44	0.62	0.37
COM_3	0.48	0.43	<b>0.91</b>	0.48	0.54	0.55	0.43	0.89	0.41	0.53	0.49
INT_1	0.42	0.50	0.45	<b>0.84</b>	0.47	0.39	0.28	0.38	0.58	0.29	0.23
INT_1	0.58	0.52	0.38	<b>0.88</b>	0.46	0.50	0.40	0.34	0.72	0.34	0.28
INT_1	0.62	0.59	0.54	<b>0.93</b>	0.56	0.43	0.40	0.47	0.72	0.40	0.29
EK_1	0.47	0.60	0.49	0.45	<b>0.84</b>	0.55	0.56	0.47	0.42	0.77	0.49
EK_2	0.53	0.45	0.60	0.49	<b>0.91</b>	0.49	0.40	0.54	0.36	0.80	0.59
EK_3	0.50	0.41	0.45	0.54	<b>0.85</b>	0.51	0.28	0.37	0.34	0.68	0.42
SOC*_1	0.53	0.58	0.57	0.47	0.53	<b>0.90</b>	0.61	0.60	0.55	0.58	0.39
SOC*_2	0.61	0.39	0.48	0.43	0.42	<b>0.90</b>	0.47	0.50	0.59	0.47	0.27

SOC*_9	0.67	0.36	0.41	0.40	0.63	<b>0.81</b>	0.39	0.41	0.45	0.65	0.41
EXT*_1	0.46	0.73	0.36	0.34	0.38	0.55	<b>0.88</b>	0.40	0.51	0.49	0.35
EXT*_2	0.32	0.72	0.36	0.34	0.34	0.30	<b>0.80</b>	0.34	0.31	0.31	0.26
EXT*_3	0.41	0.67	0.48	0.36	0.49	0.56	<b>0.90</b>	0.52	0.45	0.59	0.57
COM*_1	0.32	0.42	0.79	0.37	0.38	0.41	0.42	<b>0.91</b>	0.34	0.45	0.32
COM*_2	0.54	0.47	0.86	0.45	0.59	0.59	0.48	<b>0.94</b>	0.48	0.64	0.40
COM*_3	0.49	0.42	0.88	0.41	0.47	0.56	0.46	<b>0.93</b>	0.44	0.58	0.50
INT*_1	0.49	0.45	0.35	0.62	0.33	0.47	0.44	0.39	<b>0.87</b>	0.37	0.24
INT*_2	0.62	0.48	0.34	0.74	0.36	0.59	0.47	0.38	<b>0.90</b>	0.40	0.29
INT*_3	0.61	0.46	0.48	0.69	0.45	0.58	0.44	0.48	<b>0.91</b>	0.45	0.30
EK*_1	0.34	0.48	0.46	0.26	0.74	0.56	0.60	0.51	0.29	<b>0.85</b>	0.58
EK*_2	0.56	0.37	0.61	0.33	0.77	0.56	0.46	0.66	0.44	<b>0.90</b>	0.61
EK*_3	0.59	0.43	0.41	0.43	0.76	0.56	0.41	0.45	0.47	<b>0.85</b>	0.49
BP*_1	0.38	0.37	0.51	0.25	0.52	0.45	0.43	0.55	0.28	0.65	<b>0.83</b>
BP*_2	0.22	0.32	0.24	0.24	0.35	0.23	0.37	0.28	0.26	0.41	<b>0.80</b>
BP*_3	0.18	0.29	0.30	0.19	0.55	0.31	0.38	0.29	0.17	0.56	<b>0.83</b>
BP*_4	0.23	0.29	0.29	0.33	0.42	0.29	0.36	0.30	0.32	0.41	<b>0.79</b>

Note: \* Year 2014

Table 1: *Factor Loadings of reflective constructs*

From an examination of the results shown in Table 2 we can argue that all of the constructs are reliable. The values for both the Cronbach's alpha coefficient and composite reliability are greater than the 0.7 required in the early stages of research and the stricter value of 0.8 for basic research (Nunnally, 1978). The AVE should be greater than 0.5. Meaning that 50% or more variance of the indicators should be accounted for (Fornell & Larcker, 1981). All the constructs of our model exceed this condition (Table 2). To assess the discriminant validity, we compared the square root of the AVE (the diagonal in Table 2) with the correlations between constructs (the off-diagonal elements in Table 2). On average, each construct relates more strongly to its own measures than to others.

As noted above, a second-order confirmatory factor analysis was conducted of a model depicting the constructs of knowledge socialisation, externalisation, combination and internalisation. From an examination of the results shown in Table 3 and Table 4, all first-order and second-order factor loadings were significant. In addition to this, all the knowledge creation constructs involving two organisations (i.e. SECI 08 and SECI 14) explain a high amount of variance in their respective knowledge processes (i.e. socialisation, externalisation, combination and internalisation), thereby providing evidence that SECI 2008 and SECI 2014 are multifaceted constructs, construed from four dimensions (i.e. socialisation, externalisation, combination and internalisation).

First-order construct		First-order		Second-order	
	Indicator	Loading	<i>t</i> -value	Loading	<i>t</i> -value
Socialization 08 R <sup>2</sup> =0.65	SOC_1	0.73	<b>12.81</b>	0.80	17.72
	SOC_2	0.86	26.97		
	SOC_3	0.84	26.18		
Externalization 08 R <sup>2</sup> =0.66	EXT_1	0.86	33.91	0.80	19.59
	EXT_2	0.88	22.17		
	EXT_3	0.72	7.89		
Combination 08 R <sup>2</sup> =0.62	COM_1	0.85	<b>33.91</b>	0.79	14.81
	COM_2	0.93	67.29		
	COM_3	0.91	40.32		
Internalization 08 R <sup>2</sup> =0.74	INT_1	0.83	19.62	0.85	31.15
	INT_1	0.88	35.25		
	INT_1	0.93	61.70		

Note: \* Year 2014

Table 3: *Second-order confirmatory factor analysis of SECI 08*

First-order construct		First-order		Second-order	
	Indicator	Loading	<i>t</i> -value	Loading	<i>t</i> -value
Socialization 14 R <sup>2</sup> =0.74	SOC*_1	0.90	61.56	0.86	38.90
	SOC*_2	0.90	37.16		
	SOC*_3	0.80	16.46		
Externalization 14 R <sup>2</sup> =0.61	EXT*_1	0.87	27.02	0.78	16.63
	EXT*_2	0.76	10.25		
	EXT*_3	0.89	50.44		
Combination 14 R <sup>2</sup> =0.64	COM*_1	0.84	19.88	0.79	17.01
	COM*_2	0.93	78.68		
	COM*_3	0.92	52.53		
Internalization 14 R <sup>2</sup> =0.63	INT*_1	0.86	27.51	0.79	21.63
	INT*_1	0.89	37.84		
	INT*_1	0.90	35.60		

Table 4: *Second-order confirmatory factor analysis of SECI 14*

## RESULTS

The structural model resulting from the PLS analysis is summarised in Table 5, where the variance of endogenous variables (R<sup>2</sup>) and the standardised path coefficients ( $\beta$ ) are shown. As it can be noticed, all the hypothesised relationships have shown to be significant, and therefore, the hypotheses leading this research have been confirmed to be valid. Since PLS makes no distributional assumptions in its parameter estimation, traditional parameter-based techniques for significance testing and modelling were used for this study (Chin, 1998). One significant consequence of the comparison between covariance structure analysis modelling approaches and PLS is that no proper overall goodness-of-fit measures exist for models using the latter (Hulland, 1999).

The structural model is evaluated by examining the R<sup>2</sup> values and the size of the structural path coefficients. Adopting the approach used by Tippins and Sohi (2003), we looked for the presence of the mediating effect by comparing the direct effect between variables and the competing links where the mediated variable is inserted, whereby two significant links are estimated and evaluated in a search for significant differences. Table 5 shows the results of the two competing links. The proportion variance explained in 'BP 14' was 42 per cent. With regard to hypothesis H1, the influence of 'SECI 08' on 'EK 08' was evident ( $\beta = 0.71$ ,  $p < 0.001$ ).

With regard to hypothesis H2, we explored the presence of a mediating effect by comparing the relationship between 'EK 08' and 'EK 14', as well as the competing link where 'SECI 14' is included. Table 5 shows the results of these two competing links. The first link (direct effect) examined the direct relationship between 'EK 08' and 'EK 14', whilst the second link (partial mediation) examined the same relationship with 'SECI 2014' by acting as a mediator. The results of the partial mediation link support our hypothesis. Firstly, the partial mediation model explains more variance in 'EK 14' than the direct effect model (0.79 vs. 0.75). Secondly, positive relationships exist between 'EK 08' and 'SECI 2014' ( $\beta = 0.63$ ,  $p < 0.001$ ) and between 'SECI 2014' and 'EK 14' ( $\beta = 0.18$ ,  $p < 0.05$ ). Finally, the significant relationship between 'EK 08' and 'EK 14' in the direct effect model ( $\beta = 0.86$ ,  $p < 0.001$ ) diminishes in the partial mediation model ( $\beta = 0.69$ ,  $p < 0.001$ ). We also estimated the ratio F2 suggested by Chin (1998), to understand the significance of the improvement of the partial mediation model over the direct effect model, whereby such an improvement is considered significant in those cases where F2 is greater than 0.02.. In our study, F2 was found to be 0.19, and therefore we conclude that there has been a significant improvement. Together, these three areas provide significant evidence that there is a discernible mediating effect of 'SECI 2014' and that the partial mediation model represents a significant improvement over the direct effect model. With regard to hypothesis H3, the effects of 'EK 14' on 'BP 14' were fully verified ( $\beta = 0.64$ ,  $p < 0.001$ ). Consequently, the findings provided full support for H1, H2 and H3.

Hypotheses	Path coefficients	T values	R <sup>2</sup>	$\Delta R^2$	F <sup>2</sup>
H1: SECI 08 → EK 08	0.71***	14.19	0.50		
H2 EK 08 → SECI 14	0.63***	8.94	0.40		
H2: SECI 14 → EK 14	0.18**	1.98	0.79		
H2: EK 08 → EK 14 (only direct effect)	0.86***	11.67	0.75		
H2: EK 08 → EK 14 (mediated by SECI 14)	0.69***	5.07	0.79	0.04	0.19
H3: EK 14 → Business Performance 14	0.64***	10.82	0.42		

\*\*\*p < .01, \*\*p < .05, ns=not significant (based on a Student t (499) distribution with two tails).  
 $t(.01,499)=2.585711627$ ,  $t(.05,499)=1.964726835$ .

Table 5: Model statistics

## DISCUSSION

The first contribution made by this research is the questioning of the existing models of the relationship between knowledge management processes and environmental knowledge over time. In doing so, the authors have included time as a variable in the analysis and, have focused on the need to create environmental knowledge at a given time (T) in order for a more efficient learning to take place at a later time (T+6). The concept of knowledge management processes was explored by studying the processes behind the organisational knowledge creation construct (i.e. socialisation, externalisation, combination, and internalisation) and then studying its impact on environmental knowledge. In summary, a null hypothesis [that environmental knowledge at a given time T is a prior step in the SECI program at a later point in time (T+6)] was tested against the alternative hypothesis [that environmental knowledge at time (T) is not a required prior step in the implementation of knowledge management processes] through an empirical study of 87 companies in the Spanish hospitality sector through PLS.

The second contribution of this research is derived from the results of testing the hypotheses in a real context. Environmental knowledge at time (T) is found to be significant in predicting the knowledge management processes. The managerial implications of the relationships observed between the factors that constitute the conceptual framework shown in Figure 1 are discussed in more detail below.

The analysis of the data collected provided full support for H1: (*SECI 08* → *EK 08*). This finding corroborates the notion that specific knowledge management processes have to be used to create environmental knowledge and thereby contribute to its dissemination and retention within a company (Boiral, 2009). A possible explanation for the significance of such an effect may be related to the fact that before environmental knowledge can be created specific assumptions should be established and shared. Otherwise, only a few individuals within the organisation will have access to this relevant knowledge, which in turn may lead to the under-utilisation of relevant knowledge or the utilisation of knowledge which is not relevant, both of which cases are likely to lead to a degradation of environmental knowledge (Cegarra *et al.*, 2013). One interpretation of this relationship is that through the knowledge management processes, a company can allow individuals to adjust their mental models and the nature of their assumptions to highlight some of the environmental issues and concerns that may have a direct effect on the entire company, its operation and results.

Regarding H2, the results support the position that if the organisation considers establishing an environmental knowledge at a given point in time, then this knowledge is likely to have a positive influence on the conditions that stimulate knowledge management processes for the creation of new environmental knowledge in the future, which may have a significant impact on the organisation and

its performance. A possible explanation for this result would be the fact that reusing prior environmental knowledge puts the upcoming knowledge management processes into a familiar context for members of the organisation. In other words, knowledge management processes provide a path which activates environmental knowledge which was previously created. We believe that this is an important finding which provides the basis for a hotel to develop, as such a development relies on the hotel's ability to reuse and update the relevant knowledge of its workforce.

However, many hotel managers are cutting back on knowledge management programs by simply using prior environmental knowledge instead of implementing more innovative programs which are supported by knowledge of new environmental challenges (Aggeri, 1999). If this is the case it is possible that hotel managers are over-investing in the exploitation of prior environmental knowledge, and under-investing in (or underestimating the value of) mechanisms and aspects to develop and update existing environmental knowledge. This confirms the position adopted by Cegarra and Martinez (2010) when they argued that the use of environmental knowledge also needs to involve changes in the organisational knowledge structures. One way of doing this would be for senior management to set up a knowledge management program to embrace change and encourage new ideas and insights, which often lead to the creation of environmental knowledge. Our results show that a knowledge management program is a required step for the enhancement of environmental knowledge. In this respect, socialisation, externalisation, combination, and internalisation processes can be viewed as a mechanism for improving environmental knowledge as this may involve a process of replacing existing outdated environmental knowledge with new knowledge structures. SECI 14 enhances the effectiveness and efficiency of EK 08 which potentially leads to improved EK 14.

Regarding H3 (*EK 14* → *BP 14*), the results support the position that, in order to improve the performance of business operations, companies need to provide and support updated environmental knowledge. These findings are important in the ongoing debate surrounding the relationship between environmental knowledge and business performance, and reinforce the views that environmental knowledge may lead to increased company benefits (e.g. Rondinelli & Vastag 2000; Zhang *et al.*, 2000). A possible explanation for these findings is determined by the fact that when information or knowledge is updated and is not fragmented within a company, customer feedback is easy to obtain and, as a result, performance improves. As Erdogan and Baris (2007) noted, environmental knowledge will lead to a reduced consumption of energy, water, and materials, thus improving organisational performance. Thus, the easy retrieval of environmental knowledge is a critical aspect in responding to the growing customer demand for environmentally friendly programs and hence improving organisational performance (Bohdanowicz, 2005).

### Managerial implications

There are different methods for managing environmental issues. However, companies still show some resistance to change their current environmental programs. The general notion among many businesses is that once they have an environmental program in place, they should not change it. The results from this study contradict such a view. As competition intensifies and the pace of change accelerates, aspects of environmental knowledge (e.g. routines and procedures) are likely to change over time, requiring the modification of some of the contents of this knowledge. Our findings support the need for managers to become more aware of the need to consider time when they drive the conditions and/or context where environmental knowledge can be exploited to increase company benefits such as cost savings resulting from eco-efficiency. Time appears to be an interesting variable to understand how environmental knowledge emerges and how it can be updated to improve an organisation and its performance. With this notion in mind, we argue that traditional concepts of managing and leading change based on knowledge management processes need to consider methods which aim at deepening participation or immersion in the immediacy of the temporal flow.

## CONCLUSIONS

The above findings suggest that the creation of environmental knowledge is an important factor for organisations to become competitive, but it is not sufficient for them to maintain such a competitive advantage over time. We would further observe that the creation of environmental knowledge strongly depends on environmental knowledge which was previously created and the previous implementation of a knowledge management program facilitating socialisation, externalisation, combination, and internalisation. Through this program, individuals will be able to update their mental models by focusing their efforts on problems that are more important for the organisation and its customers, which in turn facilitates the retrieval of prior environmental knowledge.

This study has some limitations. First, national cultural issues might influence the way organisations create and update environmental knowledge. Therefore, it would be interesting to extend the study to other countries, since national cultural issues might influence the results. Secondly, this study relies on the assumption that the CEO or general director of each of the organisation possesses key knowledge of the company and therefore our emphasis here is on finding commonalities among firms in terms of the critical knowledge areas they consider important and had access to. Although this subjective information is commonly used in studies (Glaister *et al.*, 2008), future research using more than one individual who hold key knowledge within a firm (including managers, employees and even customers ) will be a useful mechanism for the study to improve the internal validity of the SECI model and environmental knowledge. Thirdly, we would consider a further research into how other

organisational factors (e.g. organisations' size and agility) which have not been included in this study are likely to affect the performance of the firm. Therefore, future research should investigate the potential links between different initiatives such as reducing waste production and resource and energy consumption by controlling and improving lighting, heating, ventilation, air conditioning, and water use, by making proper purchasing decisions on containers, use of returnable containers and recycling materials and the company goals. Finally, it may also be interesting to observe the change in the performance of companies after adopting environmental activities, through future case studies.

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## APPENDIX: QUESTIONNAIRE ITEMS

<b>Socialization of knowledge (1= high disagreement and 10= high agreement):</b>
SOC_1: Our company stresses gathering information from suppliers and customers.
SOC_2: Our company stresses building databases on products and service.
SOC_3: Our company stresses planning strategies by using published literature.
<b>Externalisation of knowledge (1= high disagreement and 10= high agreement):</b>
EXT_1: Our company stresses the use of deductive and inductive thinking.
EXT_2: Our company stresses the use of metaphors in dialogue for concept.
EXT_3: Our company stresses exchanging various ideas and dialogues.
<b>Combination of knowledge (1= high disagreement and 10= high agreement):</b>
COM_1: Our company stresses building up environmental materials by gathering management figures.
COM_2: Our company stresses building databases on products and service
COM_3: Our company stresses planning strategies by using published literature, computer simulation and forecasting.
<b>Internalization of knowledge (1= high disagreement and 10= high agreement):</b>
INT_1: Our company stresses forming teams as a model and conducting acquisition from databases, and sharing results with entire departments.
INT_2: Our company stresses enactive activities with functional departments by cross-functional development teams
INT_3: Our company stresses sharing and trying to understand management visions through communications with fellows.
<b>Environmental knowledge (1= high disagreement and 10= high agreement):</b>
EK_1: The company (hotel) uses less polluting industrial processes and products
EK_2: The company (hotel) has developed a green program (waste management, control of effluents, inventory of pollution sources)
EK_3: The company (hotel) has developed a drafting of environmental emergency plans and measures
<b>Business Performance (1=much worse than competitors and 10=much better than competitors):</b>
BP_1: Growth rate of sales
BP_2: Growth rate of profits
BP_3: Profitability rate on total assets
BP_4: Greater productivity

**TABLE 2: Descriptive Statistics and Correlation Matrix**

	Mean <sup>a</sup>	SD	CA	CR	AVE	1	2	3	4	5	6	7	8	9	10	11	12	13
1. SECI08	6.85	1.53	n.a.	n.a.	n.a.	<b>n.a.</b>												
2. SOC08	6.26	2.00	0.74	0.85	0.66	n.a.	<b>0.81</b>											
3. EXT08	6.46	1.91	0.77	0.87	0.69	n.a.	0.50	<b>0.83</b>										
4. COM08	6.87	1.99	0.89	0.93	0.82	n.a.	0.50	0.49	<b>0.90</b>									
5. INT08	7.80	1.70	0.86	0.91	0.78	n.a.	0.63	0.56	0.50	<b>0.88</b>								
6. EK08	6.20	2.11	0.83	0.90	0.75	0.70	0.56	0.54	0.59	0.55	<b>0.86</b>							
7. SECI14	6.99	1.50	n.a.	n.a.	n.a.	0.88	0.71	0.73	0.74	0.66	0.63	<b>n.a.</b>						
8. SOC14	6.93	1.77	0.84	0.90	0.76	0.69	0.67	0.48	0.55	0.50	0.59	n.a.	<b>0.87</b>					
9. EXT14	6.16	2.06	0.80	0.88	0.72	0.69	0.47	0.77	0.47	0.41	0.47	n.a.	0.53	<b>0.84</b>				
10. COM14	7.07	1.84	0.89	0.93	0.81	0.74	0.50	0.46	0.80	0.44	0.53	n.a.	0.57	0.49	<b>0.90</b>			
11. INT14	7.79	1.83	0.87	0.92	0.79	0.71	0.65	0.47	0.42	0.77	0.42	n.a.	0.61	0.49	0.45	<b>0.88</b>		
12. EK14	6.30	2.07	0.84	0.90	0.75	0.61	0.53	0.46	0.56	0.38	0.87	0.70	0.64	0.54	0.62	0.44	<b>0.86</b>	
13. BP14	6.38	1.93	0.83	0.89	0.66	0.43	0.30	0.36	0.41	0.31	0.56	0.50	0.39	0.45	0.42	0.31	0.63	<b>0.81</b>

Notes:

<sup>a</sup> Mean = the average score for all of the items included in this measure; S.D. = Standard Deviation; CA = Cronbach's Alpha; CR = Composite Reliability; AVE = Average Variance Extracted; n.a. = not applicable. <sup>b</sup> They represent the dimensions of each second-order construct. The bold numbers on the diagonal are the square root of the Average Variance Extracted. Off-diagonal elements are correlations among construct

## IMPLEMENTATION OF INNOVATION NETWORK: A CASE STUDY OF BIOTECH INDUSTRY IN CAMPANIA REGION

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### ABSTRACT

In order to achieve the economic and social development of specific contexts, entrepreneurial scholars suggest to leverage on the *innovations networks* that can be inspired by the *triple helix model* involving university-government-industry. The theoretical studies concerning this model have been addressed according to three main paths of research: the structure of innovation networks and the linkages established inside them; the external context; and the advantages and disadvantages deriving from being part of innovation networks.

The analysis of these three paths of research is useful to develop the case study of *Campania Bioscience*, an innovation network created in Campania, a Region in southern Italy, whose main goal is to create a system supporting innovation, research and competitiveness in the biotech industry.

The final aim of the paper is to verify if the theoretical results deriving from entrepreneurial literature have been considered when implementing *Campania Bioscience*.

**Keywords:** *innovation network; triple helix model; university-government-industry; economic development; entrepreneurial university*

### INTRODUCTION

Generally speaking, policy makers are interested in defining and implementing specific actions and tools in order to support innovative processes and to achieve two main goals: to create wealth and occupation. Nowadays, in particular, policy makers are more and more interested in implementing innovation networks that are inspired by the *triple helix model* (involving university-government-industry) and that aim to:

- Achieve the economic development and growth of specific contexts;
- Exploit the innovations resulting from R&D activities carried out in the universities through the commercialization of new materials, new products or new processes;
- Support the small and medium enterprises (SMEs), which usually do not carry out research activities and risk to loose the market competition, by offering innovations to be exploited.

Implementation of innovation networks able to achieve the development of a context (the main goal of governments) by matching demand (by industries) and supply (by universities) of results of R&D activities is the main focus of the present paper. More precisely, the present paper tries to highlight the theoretical aspects concerning innovation networks and to verify if they have been considered and implemented in the biotech innovation network promoted by Campania Region, in the Southern Italy, and named “*Distretto ad Alta Tecnologia Campania Bioscience*”.

The present work is structured as it follows. In the following section, the concept of innovation network is presented and discussed. In particular, the passage from the *closed innovation model* to the *open innovation model* is underlined. After that, specific aspects of the innovation network are examined. In section three, after recalling the *triple helix model* involving university-government-industry, attention is paid to the structure that innovation networks can assume. In section four, attention is paid to the context in which innovation network can be settled. As known, synergies between university-government-industry are stronger if the subjects are geographically close. Then, in section five, since the innovation process assumes specific characteristics that cannot be generalized, attention is paid to the advantages and disadvantages that can derive from being part of a network. The theoretical aspects are instrumental to develop the case study of *Campania Bioscience*, an innovation network whose main goal is to create a system supporting innovation, research and competitiveness in the biotech industry by creating and developing strong collaborations between universities and industries (section six). Reflections on the start-of-the-art and on the possible implications evolutions of *Campania Bioscience* are included in the last section.

## INNOVATION NETWORK

Nowadays, enterprises are moving from a *closed innovation model*, according to which innovation is secretly developed inside the enterprise itself, to an *open innovation model*, according to which innovations result from an exchange of knowledge and competences with external subjects who are part of their network (Aldrich and Zimmer, 1986; Dubini and Aldrich, 1991; Uzzi, 1997; Baum *et al.*, 2000; Alvarez and Busenitz, 2001). The networks created in order to achieve the above goal are properly named innovation networks.

Even if the origins of this concept can be dated back to Nineties (Freeman, 1991; Lundgren, 1995; Osborn and Hagedoorn, 1997), recent contributions have tried to point out the main characteristics of innovation networks. According to Rycroft and Kash (2004), for example, “*the innovation network is organized around constant learning. It is a set of linked organizations that create, acquire, and integrate the diverse knowledge and skills required to create and bring to the market complex technologies*”. In the above case, the most important aspect that scholars try to underline is the constant learning by enterprises.

Very recent contributions, instead, have highlighted other aspects of the innovation network. Arranz and de Arroyabe (2012) maintain that *“the innovation network is a socio-technical system formed by three interdependent subsystems: process, structure and governance”* and so they highlight three aspects (process, structures and governance) that characterize each innovation network. According to Corsaro *et al.* (2012), instead, *“the innovation network is the configuration of strategic entrepreneurial nets aimed at improving the effectiveness of innovation performance”*. In this last case, the most important aspect of an innovation network is the final goal to achieve.

Despite the differences emerging from the above definitions, innovation networks can be defined as a group of subjects involved in technology transfer processes useful to share resources (mainly intangible ones, like knowledge or competences) in order to support and to foster innovative processes (Powell *et al.*, 1996) and to foster the discovery of new entrepreneurial opportunities (Matricano, 2011). According to the above definition, innovation networks are very relevant in science-based industries (Hagedoorn, 1993, 2002), like ICT, nanotechnologies, and biotechnologies (Sorrentino, 2009).

Since it is not easy to study an innovation network as a whole, because of the peculiarities of each network and of each industry they are in, three main paths of research that have been addressed. They deal with:

- The structure of innovation networks and the linkages established inside them;
- The external context;
- The advantages and disadvantages deriving from being part of innovation networks.

These three paths of research are revised and debated in the following sections in order to try to point out their main characteristics.

## THE STRUCTURE OF INNOVATION NETWORKS

Before analyzing the structure that innovation networks can assume, it is necessary to start from a deep change that universities are facing (Chiesa and Piccalunga, 2000; Etzkowitz *et al.*, 2000; Shane, 2004; Bramwell and Wolfe, 2008). Nowadays, universities are not only involved in research and educational activities but they try to achieve their third mission (Etzkowitz and Leydesdorff, 1999, 2000; Etzkowitz *et al.*, 2000; Etzkowitz, 2003) consisting in the exploitation of the results of R&D activities in order to support the economic development of the context they are in (Johnson, 2008). Enterprises have accepted this change and, above all, they are trying to leverage on the results of R&D activities carried out by universities: high salaries, high entry barriers, and instability in the market competition are driving enterprises to ask for innovations and universities seem to be able to supply them. To match demand (by industries) and supply (by universities) of results of R&D activities is not

an easy task. This is the reason why governments (meant both at a national and at a regional level) play a crucial role in achieving this task.

Based on the close relationships between universities and industries and on the relevance that governments assume in implementing and supporting these relationships, the *triple helix model* comes out (Etzkowitz *et al.*, 2000). From a theoretical perspective, the convergence of universities', industries' and governments' aims is easy to understand. From a practical perspective, instead, implementation of specific actions is more complex. Governments, in fact, have to:

- Drive academic R&D activities towards results exploitable by industries;
- Promote the achieved results in order to inform enterprises about the existence of exploitable results;
- Manage the exchanges between universities and industries and to match demand and supply.

Even if it is clear who are the subjects involved, it is not possible to clarify any typical structure of innovation networks (Pittaway *et al.*, 2004; Salavisa *et al.*, 2012). As noted by Ricciardi (2006), in fact, each innovation network assumes the structure most fitting with the established results. Thus, no generalization is allowed. However, it seems possible to find out some key aspects that can give information about the structure of innovation networks. According to Ricciardi (2006), there are two key aspects concerning: the relevance of the subjects and the evolving structure over time.

As for the former, it is important to define whether the subjects promote the innovation network or if they decide to join an already existing one. If they are the promoters, they are expected to be more involved and to occupy the centre of the network itself. Thus, they can shape the network according to their needs. On the contrary, if the subjects join an already existing network, they do not have the possibility to shape it and so they can only accept the structure as it is. As for the latter, it is important to notice that innovation networks are supposed to last even if their structure can change. The possibility that new members can join it or that old members can leave it necessarily implies that the structure of the innovation network can be modified and, by consequence, it implies the impossibility of any generalization about it.

Another approach (Salavisa *et al.*, 2012), instead, identifies four key aspects that can determine the structure of innovation networks:

- Size: since enterprises enter or create innovation network in order to get resources they do not have, the higher is the number of subjects involved, the higher is the chance to obtain additional resources (Burt, 2000). It means that enterprises try to involve other subjects by modifying the structure of the innovation network they are in;
- Type: when subjects involved carry out similar activities, there can be a problem of redundancy (Burt, 1992); on the contrary, when subjects involved carry out dissimilar



activities, new resources are easily obtained (Baum *et al.*, 2000). There is a continuous search of subjects to be in contact with and so the structure can be modified;

- Positioning: relational position makes the exchange of resources much easier and this is a very important aspect to be considered in innovation networks (Powell *et al.*, 1999). Subjects in innovation networks try to get closer to the centre since and so possible changes in the structure can derive;
- Links: kind, content and frequency of links determine the possible structure of innovation networks. The decision to leverage on strong or weak ties (Granovetter, 1973, 1985), on formal or informal ones (Birley, 1985), on additional or redundant ones (Burt, 1992, 2000), on direct or indirect ones (Podolny and Baron, 1997; Ahuja, 2000) affect the structure of innovation network and make it impossible to generalize it.

According to the above contributions (Ricciardi, 2006; Salavisa *et al.*, 2012), it is possible to generalize neither the structure of an archetypal innovation networks nor the structure of a specific innovation network since it can always change in both the cases.

## THE EXTERNAL CONTEXT

The external context plays a very important role in technology transfer processes, determining the success or failure of innovation networks (Bramwell and Wolfe, 2008; Dell'Anno, 2010). Some contexts, meant as geographical contexts, can be considered as *knowledge innovation zones* where it is possible to establish very strong connections and to stimulate new entrepreneurial activities. In particular, this can be due to the *spillover effect* and to *technological brokers*.

The *spillover effect*, which can be defined as a positive externality that a subject involved in R&D activities can get from the results of R&D activities carried out by others, is much stronger if the source and the recipient of knowledge are geographically close (Dell'Anno, 2010). This is particularly true when the transfer processes concern tacit knowledge that is not formalized. Of course, if the transfer process concerns codified knowledge, for example through patents citations, geographical proximity is not so relevant.

As already anticipated, *technological brokers* play an important role in innovation networks and so they can affect the success or failure of innovation networks. Efficacy in technology transfer processes depends on the competences and on the skills that dedicated offices have – these offices are properly named *technology transfer offices* or *industrial liaison offices*. They deal with the commercialization of research results and, in particular, they deal with the facilitation of internal and external information flows and the definition of incentives (Phan and Siegel, 2006).

In contexts where the *spillover effect* is greater and where *technological brokers* are more efficient, innovation networks are more expected to achieve the established results.

## THE ADVANTAGES AND DISADVANTAGES DERIVING FROM BEING PART OF INNOVATION NETWORKS

As noted by several scholars (Ahuja, 2000; Dhanaraj and Parkhe, 2006; Gardet and Mothe, 2011), empirical studies able to describe and to analyze technology transfer process are very rare because of the so many difficulties to be faced. For this reason, scholars have paid more attention to the advantages and disadvantages deriving from being part of innovation networks (Ricciardi, 2006). The main advantages deal with: knowledge transfer, distinctive competences, financial resources, and exploitation of innovations. The main disadvantages, instead, deal with: opportunistic behavior and asymmetric contributions and different aims.

The first advantage is related to easiness in transfers of tacit knowledge. The fact of being part of the same innovation network suggests assuming that all the subjects involved have already developed the *absorptive capacity* (Cohen and Levinthal, 1990), i.e. the ability to apprehend knowledge transmitted by others. This happens because of the specific knowledge that subjects have accumulated in the past. Of course, the exchanges implemented in the innovation networks reinforce the absorptive capacity. The second advantage is linked to distinctive competences that can be developed. As noted by Parente (2008), enterprises can develop integrative competences (in order to mix internal and external knowledge), coordinative capabilities (able to synchronize new acquired knowledge) and generative capabilities (through which new knowledge is created). The third advantage reveals itself in reference to funding and to economies of scale and of learning, which derive from sharing the costs of R&D activities. Finally, the last advantage consists in the straight exploitation of technological innovations.

However, being part of innovation networks can cause some disadvantages as well. The first can derive from opportunistic behaviors (Williamson, 1975) that others can put into practice, both before and after the drafting of the contract ruling the partnership. This kind of disadvantage has been examined in the agency theory (Jensen and Meckling, 1976). The second disadvantage, then, can arise when the subjects involved in the network do not share the resources arranged or when they pursue different aims. In both the cases, the subjects are forced to proceed with the network activity or they could be interested in leaving the network.

Both the possible advantages and disadvantages are shown in table 1.

Table 1. IMPLICATIONS OF BEING PART OF INNOVATION NETWORKS

Advantages	Disadvantages
1) Knowledge transfer 2) Distinctive competences 3) Financial resources 4) Exploitation of innovations	1) Opportunistic behaviour 2) Asymmetric contributions and different aims

Source: Adaptation from Ricciardi (2006).

## A CASE STUDY OF BIOTECH INDUSTRY IN CAMPANIA REGION

The results of the analysis carried out in previous sections (about the networks' possible structure, the external context and the achievable advantages or disadvantages) are instrumental to test whether the implementation of *Campania Bioscience* has been properly carried out.

Since the Second University of Naples – which has funded this research project – is located in Campania Region, the choice to refer to a network implemented in the same Region sounds obvious. However, the choice of the network to refer to is not. For this reason, the choice is rooted in the entrepreneurial literature. Open innovation network are very frequent in knowledge-based industries (Hagedoorn, 1993, 2002) that mainly deal with biotech or aerospace industries in Campania Region. Between them, the most recent network implemented in the Region is related to the biotech industry and from this it derives the choice to focus on *Campania Bioscience*.

In order to understand the peculiarities of the biotech industry (Pisano *et al.*, 1988; Arora and Gambardella, 1990; Powell *et al.*, 1996; Ahuja, 2000; Baum *et al.*, 2000; Audretsch and Feldman, 2003; Boardman, 2008), it is suitable to start from some data published in a report edited by Ernst & Young (2012) entitled “*Rapporto sulle Biotecnologie in Italia - BioinItaly Report 2012*”. According to the data, Italy has one of the highest amounts of biotech ventures. Across Europe, only Germany and United Kingdom show better results. Data about the distribution of the Italian biotech ventures are shown in table 2.

Table 2. DISTRIBUTION OF THE ITALIAN BIOTECH VENTURES BY REGION

The Italian <i>biotech</i> ventures by Region		
<u>Region</u>	<u>Number</u>	<u>Percentage</u>
Lombardia	129	32.74%
Piemonte	43	10.91%
Lazio	42	10.66%
Emilia Romagna	36	9.14%
Veneto	25	6.35%
Toscana	24	6.09%

Sardegna	23	5.84%
Friuli Venezia Giulia	20	5.08%
Liguria	9	2.28%
Campania	8	2.03%
Marche	7	1.78%
Sicilia	7	1.78%
Puglia	6	1.52%
Trentino Alto Adige	3	0.76%
Umbria	3	0.76%
Calabria	3	0.76%
Abruzzo	2	0.51%
Valle d' Aosta	2	0.51%
Basilicata	1	0.25%
Molise	1	0.25%
Total	394	100.00%

Source: “Rapporto sulle Biotecnologie in Italia - BioinItaly Report 2012”, Ernst & Young.

Campania is at position number ten in the list and, according to specialists of the industry, it seems to be a promising context for future development of biotech industry.

The data about partnerships of Italian biotech ventures are of great interest too. While 54% out of all the *biotech* ventures is standing alone, 35% out of the total is located in scientific parks or in incubators, and the remaining 11% is located close to universities or research centers (table 3).

Table 3. SPATIAL LOCALIZATION OF ITALIAN BIOTECH VENTURES

Localization of Italian biotech ventures	
Kind of localization	Percentage
Standing alone	54%
In scientific parks or incubators	35%
Close to universities or research centres	11%
Total	100%

Source: “Rapporto sulle Biotecnologie in Italia - BioinItaly Report 2012”, Ernst & Young.

The above data, according to which 46% out of Italian biotech ventures is located in knowledge innovation zone, represent the starting point for the implementation of *Campania Bioscience*.

The project about the implementation of Campania Bioscience can be dated back to 22<sup>nd</sup> March 2011 when the feasibility study was presented. On 23<sup>rd</sup> April 2012 the Italian Ministry of University and Research (M.I.U.R.) has approved the above feasibility study and then, on 7<sup>th</sup> August 2012 the agreement between M.I.U.R. and Campania Region, properly named “*Accordo di Programma Quadro*”, has been signed.

All the partners involved in the network have shared the mutual-aid aim of the network so that the net gains will be reinvested in R&D activities. The social capital is nearly equal to 1.7 millions of euro (44% by research institutions, 44% by ventures, and 12% by technology transfer offices).

It is possible now to pay attention to the three paths of research presented above: the structure of the network, the context and the possible advantages/disadvantages.

As for the structure, Campania Bioscience is still *in fieri* and so it is not possible to study the possible evolutions of its structure. However, there are the three main subjects involved in the open innovation network. Campania Region has signed the agreement with M.I.U.R. and so the government plays an important role in this network. The research institutes (both universities and research centers) and the technology transfer offices involved are ten and the ventures involved are sixty-four. All the three main subject of the *triple helix model* are actively involved in the Campania Bioscience.

As for the context, the choice to involve only research institutes (both universities and research centers) and ventures that are located in Campania highlights the will to transform the Region in a *knowledge innovation zone*. Hopefully, this can support the process of *inventing around*, a process through which starting from a research result already achieved – like a patent – many other results can be achieved.

Finally, it is possible to analyze the possible advantages/disadvantages. The first advantage deals with knowledge transfer and distinctive competences (Powell *et al.*, 1996; Powell, 1998; Garraffo and Sorrentino, 2009). The heterogeneity of the subjects involved in *Campania Bioscience* – ten research institutions and sixty-four ventures – surely represents one of the main strengths. The shared competences vary across the subjects and so knowledge transfers are expected to be effective and productive. As for the economic advantages linked to be part of a network (Cunningham, 2002; Audretsch and Feldman, 2003; Pisano, 2006), the social capital of nearly 1,7 millions euro and the mutual-aid aim seem to be right promises to the proceeding of the research activities.

Of course, attention needs to be paid to the disadvantages too. Up to now, disadvantages in *Campania Bioscience* have not emerged yet mainly because the network is very recent. However, some actions in order to reduce them have been thought and implemented. All the subjects involved, in fact, have been divided into three main lines of interventions (shown in table 4). Hopefully, this should avoid the raising of disadvantages by creating small groups where the partnership should be much easier.

Table 4. LINES OF INTERVENTION ESTABLISHED BY CAMPANIA BIOSCIENCE

The lines of intervention
Line 1 – Industrial Research and Experimental Development – concerns three main fields of research:
A) Development and production of new biotech products
B) Diagnostics, bio-sensorial systems and innovative technology for biomedical industry
C) Development and experimentation of new therapies
Line 2 – High Education - deals with education of researchers and technicians and concerns:
A) Industrial research projects and pre-competitive development
B) Managerial and technical skills
Line 3 – Promotion, internalization, diffusion and technology transfer – includes six actions:
Action 1: Diffusion, <i>dissemination</i> and valorisation of the research results
Action 2: Patent protection
Action 3: Supporting the start-up process
Action 4: Internationalization of the District and <i>networking</i> activities to get external funds
Action 5: Communication inside and outside the District
Action 6: Cooperation in international R&D activities

Source: Report edited by Distretto ad Alta Tecnologia Campania Bioscience, 2012.

## CONCLUSION

As emerged from the literature review, it is not possible to define an archetypal type of innovation network. It is only possible to fix some key-aspects like the structure (and its evolution), the context and the possible advantages/disadvantages.

The present study has tried to verify if these key aspects have been considered when implementing *Campania Bioscience*, a biotech innovation network promoted in Campania, a Region in southern Italy. The fact that they have been taken into account seems very promising even if it seems premature to assume that these characteristics can take to long-run positive results. Very often, in fact, disadvantages can be more relevant than the expected advantages and so the ongoing of the innovation network does not seem so obvious: theoretical research can be helpful to fix some guidelines but to implement them is not so straight.

Unfortunately, *Campania Bioscience* is still in an embryonic phase and so it is not possible to evaluate if and to which extent the implementation of the innovation network matches the theoretical guidelines emerged above. However, by proceeding as already done – leveraging on the positive key aspects and trying to avoid the possible disadvantages – *Campania Bioscience* could aspire to be the driver of future economic development of Campania Region and, above all, it could legitimately aspire to be a good example of the *triple helix model*.

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## IMPACT OF PHENOMENON OF MONEY LAUNDERING ON MODERN GLOBAL ECONOMY

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### ABSTRACT

Within the last few years the structure, function and effectiveness of the market system of many countries have undergone radical transformations. Liberalization of commodity and service turnover as well as a free flow of technology, people and, above all, capital has had a stimulating effect on the development of economy of these countries. Nevertheless, all these factors also create opportunities for various businesses to use different elements of the market systems in conducting some criminal activity and related to its money laundering. The development of the phenomenon of money laundering is mainly facilitated by differences existing between legal and financial systems of particular countries and international standards as well as by achievements of the scientific and technological revolution. The commonness of a fast and efficient information transfer combined with an unlimited possibility of global travelling brings about a situation where money laundering assumes new and more refined forms. Therefore, the harmfulness of the phenomenon can neither be treated as a one-facet problem nor considered in isolation from other elements of an economic and financial pathology. Money laundering can pose a serious threat both to individual firms and all market mechanisms on a regional and global scale. With respect to the above-presented problems, the goals of research were to define phenomenon of money laundering, its nature and evolution as well as mechanisms of its development, identification role of globalization of world economy on development the process of money laundering in the modern economy and assessment of a threat posed by the phenomenon to the functioning of firms, countries and the whole world economy.

**Keywords:** *money laundering, determinants, global economy*

### INTRODUCTION

Globalization as result of expanding geographical range of interactions between different subjects of international relations has huge impact on market system in particular countries, regions and whole world. Within the last few years the structure, function and effectiveness of the market system of

many countries have undergone radical transformations. Liberalization of commodity and service turnover as well as a free flow of technology, people and, above all, capital has had a stimulating effect on the development of economy of these countries. Nevertheless, all these factors also create opportunities for various businesses to use different elements of the market systems in conducting some criminal activity and related to it money laundering. The development of the phenomenon of money laundering is mainly facilitated by differences existing between legal and financial systems of particular countries and international standards as well as by achievements of the scientific and technological revolution. The commonness of a fast and efficient information transfer combined with an unlimited possibility of global travelling brings about a situation where money laundering assumes new and more refined forms. Therefore, the harmfulness of the phenomenon can neither be treated as a one-facet problem nor considered in isolation from other elements of an economic and financial pathology. Money laundering can pose a serious threat both to individual firms and all market mechanisms on a regional and global scale.

With respect to the above-presented problems, the goals of research were to define phenomenon of money laundering, its nature and evolution as well as mechanisms of its development, identification role of globalisation of world economy on development the process of money laundering in the modern economy and assessment of a threat posed by the phenomenon to the functioning of firms, countries and the whole world economy.

#### Globalisation – notion and characteristics

The globalization can be also defined as a process where markets and production of different countries become more dependent on one another due to an increase in the volume of exchanged goods and services as well as due to the inflow of capital and technologies. Globalization can be perceived as a higher stage of internationalization, characterised by intense development of relations and interactions on a global scale. According to W. Anioł, nowadays, internationalization „evolves” into globalization as a result of expanding geographical range of interactions between different subjects of international relations, until it comprises the whole world. Hence, the internationalization can be treated as an initial concept of globalization. H. Chołaj describes globalization as the highest stage of internationalization, which constitutes multitude of processes and phenomena such as the international flow of goods, services, capital, technologies, information and human resources. The author also refers to it as a dominant orientation on the world’s market with respect to trade, investment and other transactions, as a territorial and institutional integration of markets and, finally, as global problem relating to ecological degradation which calls for international cooperation in providing adequate solutions (Berekoven, 1989). According to A.K. Koźmiński, in the economic sense, the main difference between the internationalization and globalization lies in their geographical range.

In case of internationalization, its range reaches several countries, whereas globalization comprises the whole global market. Internationalization is of gradable character where we can talk about less or more advanced stage of internationalization of companies, industries or the economy of a given country or region (Limanski, 2001).

Globalization has mainly comprised the production and sales of modern goods which are scientifically and technologically advanced (electronic, motor or chemical industry). Globalization is most vividly demonstrated through international investments, production and inter-corporation exchange rather than through traditional foreign trade. Following the assumptions, the development of globalization will take place simultaneously with the spread of information, and therefore, the future society will be not only the society of information but, first of all, a global one (Meissener, 1991).

The reasons for the acceleration of the globalization processes in the world, and especially their occurrence on a global scale, are connected with technological (technological and scientific revolution), political and socio-economic changes (Rymarczyk, 1996).

With respect to the first factor, its influence on the globalisation should be combined mainly with well-grounded interests of oligopolystic competitors and with huge investments made in research and development. Bearing the costs of investments, big corporations aim at their quick amortisation through selling which goes beyond the borders of domestic, or even neighbouring markets. The increase in sales volumes, and consequently, the extension of a production range, brings more benefits. The shortening of a product life cycle as a result of growing competition encourages countries to sell to the largest markets including the global one.

Another technological factor affecting the process of globalization relates to new inventions, mainly the Internet which facilitates and reduces the costs of transport and communication. The distance included in costs does not influence the price as much as before, and thus helps develop the international transfer of products and know-how.

The socio-economic factors, resulting from a homogenous character of consumers and their growing requirements, are also connected with technological changes. The development of transport and communication has facilitated not only the flow of goods and information, but also the movement of people whose tastes have become alike. The standardization of life styles and consumption patterns increases income levels and fosters educational development. As a result, there appear consumer groups whose buying behaviour with respect to goods and services is mainly conditioned by demoscopic or psychological factors, and not by the type of their nationality. This explains why the demand for these goods and services appear in different countries.

Another factor that has accelerated the process of globalization is the liberalization of the world trade combined with the policy of facilitating and supporting the flow of capital. This policy is advocated by

countries which send or receive the capital, and by organizations (e.g. World Bank) whose activity is crucial for supporting economic growth and for including Poland and other East-European countries in the process of globalization. Nevertheless, all these factors also create opportunities for various businesses to use different elements of the market systems in conducting some criminal activity and related to it money laundering.

## **MONEY LAUNDERING – EVOLUTION AND CHARACTERISTICS**

Money laundering appeared for the first time in the twenties of the previous century in the United States of America. The phenomenon did not appear in the course of the evolution of crimes and transgressions of economic nature, but occurred as a new type of criminal activity which evolved together with the development of modern organized crime. High proceeds from illegal business and criminal operations, as well as threats following the investigation process against Alphonse Capone<sup>1</sup> forced the elites of the criminal world to legalize illicit funds (Bartosiak, 2003). The eighty-year-old history of money laundering, the history of an invasive character, can be divided into two stages of development. The first stage is characterized by the use of simple methods of funds legalization.<sup>2</sup> In the second stage of its development, money laundering evolved into specialized international criminal activity organized in a regular business defined as “full-time criminals” (Lerbell, 1978).

The main direction of the phenomenon evolution has been influenced by existing correlations between:

- a) the process of transformation of small local criminal groups into organizations of a regional range, as well as the transposition of some of the groups into organizations of a distinct organizational structure,
- b) fast-developing professional methods of activity of criminal groups,
- c) new fields and areas of interest of criminal circles and new possibilities provided by ongoing geopolitical changes,
- d) achievements of the scientific-technical revolution.

The legalization of big sums of money has become a necessity for members of criminal groups, as it is the “laundered” money that can ensure the “consumption of fruits” of criminal activity and guarantees its further development. Illegal funds come from two main sources of criminal activities:

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<sup>1</sup> Al. Capone, the founder of a modern criminal organization whose activity involved corruption of politicians and police representatives, extortions, illegal gambling, and management of brothels. The gigantic annual proceeds of 60 mln dollars of that time (at present it equals about 2 billion dollars) were gained through illegal alcohol trafficking in the whole area of the State of Illinois. Al Capone was sentenced to 10 years in prison for evading tax on winnings gained in an illegal casino.

<sup>2</sup> Al. Capone bought a chain of city laundries and introduced illegal money into the legal circulation through fictitious proceeds from fictitious services.

- 1) traditional activities,
- 2) activities which evolved with new trends, as a consequence of system transformations of Central and Eastern Europe countries and a new process of international integration within the European Europe.

Traditional offences and crimes which constitute a source of illegal funds comprise:

- 1) All types of drug crimes.
- 2) Tax frauds.
- 3) Customs crimes.
- 4) Arms trading, especially nuclear materials.
- 5) Organized prostitution including children prostitution and procurements.
- 6) International terrorism and contract murders.
- 7) Extortions and ransoms.
- 8) Trading children, women and life body organs.
- 9) Forgery of money, securities and personal documents.
- 10) Theft, smuggling and fencing stolen arts, antiques and luxury items.
- 11) Illegal transfer of people over international borders.
- 12) Production and trading of illegal software and counterfeited CDs and DVDs.

The second group of crimes which have been evoked by geopolitical changes comprises:

- 1) Activities directly related to business and financial operations in the field of privatization being part of a system transformation of CEE countries.
- 2) Frauds connected with a structural policy, particularly the embezzlement of the EU funds (Jasiński, 2002).

The process of money laundering consists in the introduction of means of payment, securities or other currencies of unknown origin into the legal circulation (Pracki, 1995). The executive activities may differentiate depending on the country where the money is laundered and on the profile of criminal activity. Nevertheless, these activities are always subjected to goals which can guarantee effective legalization of financial means:

- 1) hiding a real source of funds and identity of their owner,
- 2) constant supervision and necessary safety of illegal money in the process of its legalization.
- 3) legalization of illegal proceeds through their introduction into the official financial system.

The process of money laundering has been based on a three-stage model (Gilmore, 1999) for the sake of a precise description of stages, characteristic features and rules of the process functioning. Thanks to this, it is possible to define the areas of operational activities of money laundering, and, above all, to

expose the weak points of the mechanism whereby the probability of identifying suspicious financial operations is bigger.

**Table 1. Stages and main objectives of the process of money laundering**

Stages of the process	Main objectives of the stages of a classic process of money laundering
Placement	Disposal of illegal money through: <ul style="list-style-type: none"> <li>- purchase of luxury items or real estate</li> <li>- purchase of financial instruments</li> <li>- different forms of deposits with financial institutions</li> </ul>
Layering	Separation of illegal money from the source of its origin through: <ul style="list-style-type: none"> <li>- purchase of short-term deposits,</li> <li>- very frequent financial operations ,</li> <li>- artificial extension of the duration of financial transactions.</li> </ul>
Integration	The introduction of illegal money into the legal circulation through assimilation of the illegal and legal funds.

Source: Author's elaboration based on Wąsowski and Wąsowski, 2001 and Bilmore, 1999.

The revealed and examined cases of the legalization of illicit funds show that the process of money laundering can be conducted with the omission of particular stages,<sup>1</sup> the stages may exist simultaneously or else they may overlap (Gilmore 1999, p. 37). Nevertheless, the executive activities always demonstrate the following features:

- 1) Complex forms of operational activities.
- 2) The use of a perfect camouflage.
- 3) Character of participants of the process.
- 4) The main objective of the operation.
- 5) A cross-border strategy of the operation.

In view of the growing importance of globalization of the world economy, the cross-border character of the process of money laundering is gaining still more significance. The international character of money laundering is presented in Table 2.

<sup>1</sup> The omission of the first stage may occur due to:

1. Lack of possibility of purchasing financial assets: shares, bonds, banker's and traveller's cheques.
2. The use of deposit services provided by banks and deposit institutions "...exceptional attractiveness of deposit institutions for criminal groups as a result of a wide range of services which give "launderers" a possibility to hide deposits and legitimize incomes, in other words, to launder money through the second and third stage.

**Table 2. Characteristic features of the process of money laundering**

No	Characteristics of crime defined as a business
1.	<b>Complex forms of operational activities</b> are characterized by high adaptability to a dynamic changes occurring in the environment and by high flexibility of functioning, which is developed through the use of the most recent technological and scientific achievements. All this is reinforced by extremely strict internal discipline within criminal organizations.
2.	<b>The use of a perfect camouflage</b> - refined appearances of a legal operation.
3.	<b>The character of the process participants.</b> These are not "people from a social margin" but "high-class specialists in banking and law whose activities are supported by state legislators.
4.	<b>The main objective of the operation;</b> a cut-throat pursuit to maximize profits.
5.	<b>A cross-border strategy of the operation</b> pursued within the international criminal operation enables launderers to use all types of loopholes in order to facilitate the concealment of illegal funds and their origin.

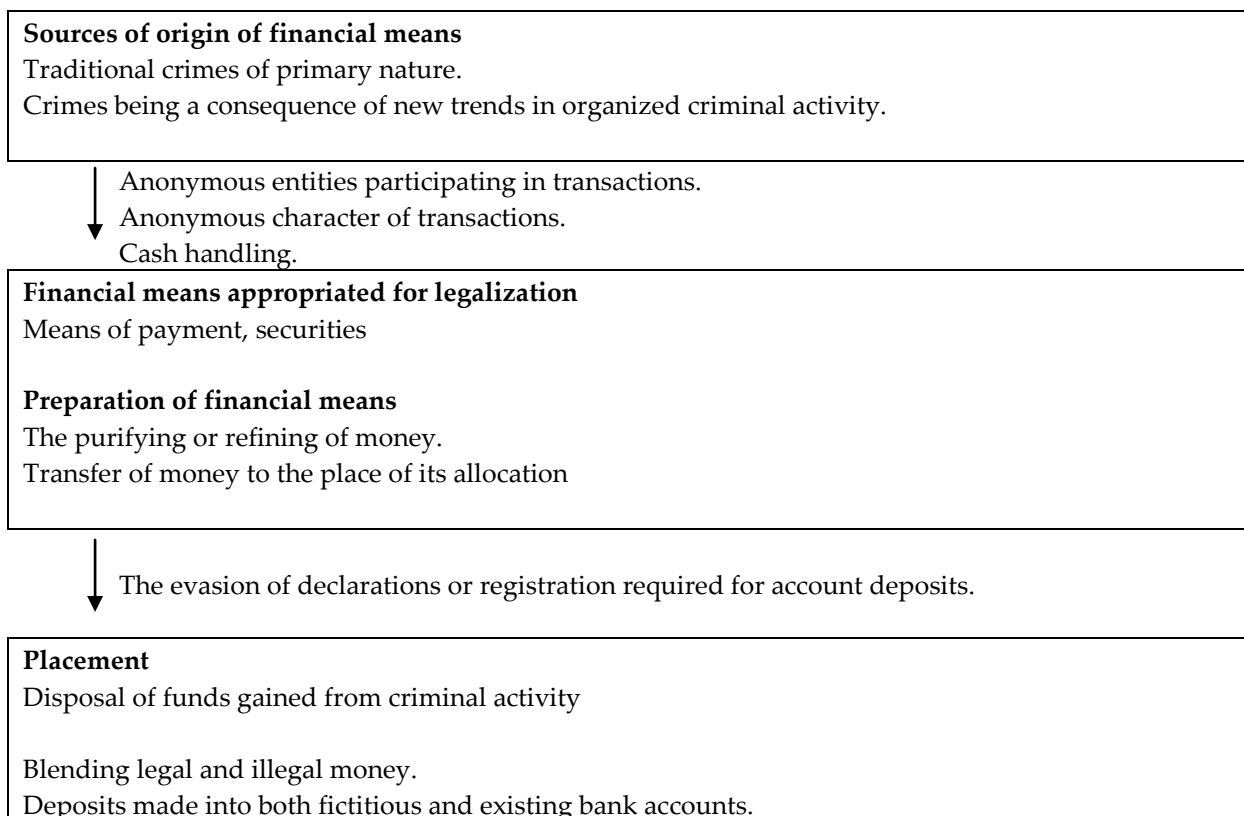
Source: Author's elaboration based on Lernell, 1978 and Jasiński, 2002.

The high adaptability of the process participants to new geopolitical conditions and their ability to use scientific and technological achievements contributes to the development of natural mechanisms which facilitate further evolution of money laundering.

## THE MODEL OF MONEY LAUNDERING PROCESS

In order to precisely define the nature of particular stages of the process and existing relations between them, the model has been presented in block diagram as in Figure 1.

Figure 1. The classic process of money laundering





Purchase of financial instruments.  
 Purchase of luxury items.  
 Money transfers.  
 Smurfing.  
 Purchase of foreign currencies.



Entering a system of financial disguise of money origin

### **Layering**

Hiding the source and the owner of financial means.

The general rule of a fast money transfer.  
 SWIFT Society for Worldwide Interbank Financial Telecommunications.  
 EFT Electronic Funds Transfer.  
 Traditional ways of money transfers.  
 Purchase of financial assets such as shares, bonds, traveller's or cashier's cheques  
 Electronic transfers between accounts.  
 Simulation of a cash withdrawal.  
 Establishment of fictitious firms.  
 Purchase of companies in insolvency.



Return of clean money to the owner

### **Integration**

Providing evidence of a legal character of financial means.

Transactions in tax havens.  
 Credit-deposit operations.  
 Purchase of expensive and luxury items.  
 Commercial transactions with foreign countries  
 Repayment of loans.

Source: Author's elaboration based on Gilmore, 1999.

The process of money laundering is directly preceded by activities which aim at the adjustment of the money denomination to the most favourable value defined by one of the two procedures of further conduct:

- 1) The provision of funds to the place where attempts are made to introduce the funds into the banking system.
- 2) Placement – the first stage of the classic model of money laundering.

The provision consists in the transfer of illegal money from the place of illicit income to the place of money laundering. These are often tax havens where the focus is put on discretion and anonymity, regulations allow for cash deposits and the money exchange is not subject to monitoring. The provision is most frequently made through:

- 1) A physical transfer of money.
- 2) The change of money into luxury items which are most frequently sold at cut prices after transportation.

The main objective of activities undertaken within the first stage of money laundering, referred to as placement, is the introduction of means of payment into the financial system by virtue of three types of operations:

- 1) Physical deposits into accounts (transaction structuring).
- 2) Deposits made into accounts through smurfing (smurfing).
- 3) Blending legal and illegal money (blending).

Physical deposits made into accounts (a proper definition of transaction structuring) consist in making various financial operations at the stage of placement. Deposits are made into all types of accounts, including fictitious accounts of non-existent companies, organizations and natural persons. This method, however, is restricted by the obligation to identify the ordering party of an operation and to register transactions over the equivalent value of 15,000 euros. In order to evade the obligation, combined transactions are used, where series of deposits below a certain regulatory cash limit are made into definite accounts. Thus, the accumulated funds are wired into collective accounts (Kowalski, 2001).

“Smurfing” is a form of a physical deposit and constitutes one of the safest, the most developed and the best organized technique of money laundering. It is also the most difficult to divulge, but at the same time very laborious and time-consuming. The method is used on all continents, especially in Asia and Europe. “Smurfing” involves splitting and distributing illicit money among “smurfs” who either pay the money into bank accounts below some limit sum or buy traveller’s cheques.

“Blending”, in other words mixing illicit money with legal funds, constitutes the oldest and the simplest method of money laundering at the placement stage. The blending of financial means is performed within three methods:

- 1) Supporting criminal activity.
- 2) Company takeovers.
- 3) Cooperation defined by terms and provisions stipulated in the agreement between the management of a company and leaders of a criminal group.

The method of blending illicit funds with legal proceeds of service companies, where cash flow (turnover) is very big and its volume is hard to estimate by law enforcement agencies, is defined as “supporting criminal activity”. If a company belongs to a criminal organization, it serves an extra function of an official place of employment for members of such an organization. The history of money laundering has witnessed cases where contracts were signed between owners of companies

and organizers of the process of money laundering. Such indicative data as high turnovers and due settlement of VAT and income taxes have made the procedure extremely safe. Only sudden appearance of big volume turnovers, which are incompatible with the company's size and potential, and an in-depth analysis of the company's business activity may raise some suspicions which are, however, extremely difficult to confirm (Czajkowski, 2002).

The main objective of undertaken activities within the second stage of money laundering, referred to as layering, is the separation of funds from a source of their origin. This is achieved through various fast banking operations. The duration and number of performed transactions are subjective and launderers must be absolutely sure that the establishment of a real source of money origin is not feasible. In order to achieve this, the following methods are employed:

1. Fast transfers with the use of electronic tools:
  - a) SWIFT ( Society for Worldwide Interbank Financial Telecommunication),
  - b) EFT (Electronic Funds Transfer) and traditional methods of money transfer.
2. The purchase of financial assets and the change of their form.
3. Setting up fictitious companies - even for one financial transaction.

Very fast performance of electronic orders and easy access to SWIFT and EFT make these tools perfect for layering interdepartmental, inter-bank and international operations with a simultaneous change of their name and owner (Wójcik, 2002).

Another method of money laundering at the stage of layering involves the purchase of financial assets which could not be bought in the previous stage. In this case the separation of illicit funds from their source occurs at the moment of purchase or during the change of a deposit form. Every restructuring of invested capital poses a threat of capital loss or its value change. The process of money laundering also employs a method which involves setting up fictitious companies or saving insolvent businesses whose accounts are used to conduct previously discussed activities (Zadworny, 2002).

The main objective of activities at the stage of integration is to legitimize both the criminals' wealth and their high incomes. This is achieved through the introduction of both illegal and legal money into the joint circulation by means of the following methods:

- 1) Purchase and sale of luxury items and tangibles.
- 2) Repayment of loans.
- 3) Saving companies in bankruptcy.
- 4) Foreign trade transactions and transactions using transfer prices.
- 5) Credit-deposit activity (Gilmore, 1999).

The mechanism of money laundering through the purchase and sale of luxury items and tangible assets below the market price works in the following way: the payment of financial liabilities resulted from the purchase is effected from two sources:

- 1) the legal source with respect to the official price defined by the purchase-sale agreement.
- 2) the illegal source, with respect to the difference between the market price and the prices stipulated in the agreement (Fijałek, 2001).

The sale legalizes and justifies the profit. The method engages all kinds of real estate agencies as well as companies involved in selling means of transport, even without their knowledge of the game which they are part of. The repayment of loans with illicit funds is another method of money laundering at the stage of integration. The means obtained from the loan are proved legal, whereas the repayment is effected with funds from secret sources. The method is extremely effective and difficult to reveal, particularly when institutions applying for a loan are managed or controlled by criminal groups.

Another technique of money laundering at the integration stage consists in the introduction of financial means from a criminal activity into an insolvent company with an apparent intention of saving it. The procedure is facilitated by some attitudes of managers who are in charge of an insolvent company or its assets. They usually do not scrutinize the origin of saving funds, or else deliberately enable their legalization (Zadworny, 2002).

Some other methods of money laundering at the integration stage comprise international commercial transactions which use:

- 1) Double sources of import financing.
- 2) Manipulative changes of prices of imported goods.
- 3) Deliberate and planned lack of correspondence of a declared value and volume of imported goods to the market price and volume of goods delivered by the exporter (Matusz, 2002).

Such actions allow for the manipulation of customs duties whose lowered value is a decisive factor during the identification of suspicious transactions.

The technique of a double source of financing involves the introduction of illegal money into the circulation at the stage of payment for imported goods. This is performed by means of two sources of money:

- 1) The legal source, used to pay for imported goods at reduced prices according to invoices.
- 2) The illegal source, used to pay the difference resulted from a real value of imported goods and the legal payment (Kęsicka, 1993).

The method of transfer price manipulation is based on a deliberate change of the price value and most frequently constitutes one of the elements of wider-range criminal activities. The planned change of transfer prices and the use of differences in particular areas of taxation, which are obligatory for

both importers and exporters, lead to the development of informal financial relations between institutions participating in the process. The relations are of informal and mutual character, and their existence is known exclusively to the authors of the process. All this ensures an increase of the value of illegitimate money transfer by means of higher and lower taxation within:

- 1) Mutual provision of fictitious services.
- 2) Fictitious complaints concerning quality of a product or service.
- 3) Licence fees (Matusz, 2002).

The credit-deposit method of funds legalization at the stage of integration involves the use of illicit money as long-term deposits or low-interest loans. Illegal money deposited mainly with foreign banks in the form of long-term deposits constitutes a perfect security or a source of repayment of a loan granted mostly in a home country. The second element of the strategy comprises granting long-term and low-interest loans either by institutions participating in money laundering or directly by criminal groups. The borrowers are companies which have been denied credit facilities by other banks due to lack of credibility with respect to sources of loan repayment and to their financial and economic standing.

Money laundering is a process comprising a series of financial activities undertaken by the same "work group" and for the same reasons, expressed through repeated correlations and producing definite socio-economic results. The authors of the process are top specialists in banking and vast areas of law who aim at creating more effective and better concealed methods of money legalization. Hence, it can be presumed that there exist other, so-far undiscovered methods reaching beyond the popular techniques of money laundering.

## **FACTORS STIMULATING THE PROCESS OF MONEY LAUNDERING**

The development of the international process of money laundering as a specialized area of organized criminal activity is fostered by the following factors:

- 1) Different legal and financial systems of states or state unions.
- 2) The role of progress being a result of the scientific-technical revolution initiated in the second half of the previous century.

Differences between financial and legal systems of countries and international standards are the most significant factor stimulating the process of money laundering.

The differences refer to four areas of the systems:

- 1) Competition – liberalization of regulations with respect to tax and banking law through implementation of governmental programmes concerning the creation of favourable conditions for entrepreneurship.

- 2) Legislation – lack of uniform international legal and financial standards with respect to: what is banned and what is allowed in a country.
- 3) Prevention – lack of international cooperation of specialized national law enforcement agencies with respect to continuation of prosecution of transgressions and crimes committed abroad.
- 4) Jurisdiction – the application of the principle of territory, which hinders effective adjudication also with respect to some organized crime including money laundering (Bojarski, 2001).

The deliberate exploitation of the above-presented differences by state governments contributes to the creation of tax havens whose numerous sophisticated legal and economic mechanisms open the way to the development of private enterprises. The liberalization of tax regulations and lack of bureaucratic management barriers attract foreign investors who foster economic development through commercial and investment operations. All this leads to the establishment of agencies of specialized law and auditing companies, as well as world banks and insurance companies. The agencies, which represent transnational organizations managing multibillion deposits, offer the most sophisticated financial services and, at the same time, ensure total anonymity of participants of banking operations and discretion of conducted transactions. The nineties of the 20<sup>th</sup> century witnessed the greatest boom of tax havens. Business operations which intend to open their activity in tax havens or are already present on their territory are offered competences such as:

- 1) Tax savings - people who run their own legal business can be relieved from any forms of taxation.
- 2) Discretion and anonymity - most institutions rendering financial services conform to the legal norm according to which any disclosure of information about owners of a company is deemed a penal act.
- 3) Protection of assets - majority of jurisdictions of tax havens has many legal norms protecting company assets or owners. Any court executions or verdicts passed by organs of other jurisdictions are subject to objection (Niklewicz, 2002).

Whatever their geographical locations, tax haven share the same characteristic features.

**Table 3. Features of tax haven share**

Feature	Structure of the feature
Liberalization of banking law	Liberal regulations with respect to the banking law enable anonymous bank account openings. Banks of Luxemburg, for example, accept cash deposits without asking any questions, which is unthinkable in other countries of the European Union. The authorities argue that similar regulations are obligatory in the competitive Switzerland, and as long as they are in force there, Luxemburg will not change its own regulations.
The change of interest taxation into fees and taxes of a symbolic value.	Tax savings are a consequence of the following facilities: 1. Payment of small administrative charges. 2. The change of all kinds of interest taxes such as profit tax, capital tax, capital transfer tax, inheritance or vat tax into lump-sum tax.
Strict banking secrecy	Within the cooperation with the judiciary, the disclosure of the banking secret is restricted; the secret can be revealed in the case of the most serious crimes.
The guarantee of security	Tax havens are located in areas which are free of military operations and in the vicinity of big markets. They are characterized by great economic and political stability of an economic region or a country.
Excellent technical facilities	Excellent technical facilities enable to carry our transactions by means of the most advanced tools. Tax havens have excellent transport infrastructure including air connections with the most strategic places of the world.
Favourable law regulations for launderers of dirty money	The law regulations are so designed as to protect and obtain capital. The authorities consciously allow for regulations conducive to money laundering. In 1962 president Charles de Gaulle threatened to deprive Monaco of water and electricity and imposed customs union on the principality. In 2000 Monaco was threatened again with legal sanctions by the French Ministry of Finance.

Source: Author's elaboration based on Wąsowski and Wąsowski, 2001 and Wotava, 2000.

According to experts of International Monetary Fund, tax havens manage the deposit sum of over 5 thousand million dollars, which is half of the funds invested outside the states of the funds origin. It has been estimated that due to the existence of tax havens the third part of incomes of the global economy is not taxed. This does not mean, however, that tax havens are popular exclusively with criminal groups, as they provide a good place of investment for international corporations and people of high incomes, who want to optimize their tax expenses within legal regulations. Special Economic Zones created in Poland in order to attract foreign investors are also some kind of substitute for tax havens. Under the amendment of tax regulations of the year 2000, the Minister of Finance issued the order which classifies tax havens into:

- 1) Countries and territories recognized as tax havens due to their harmful competitive taxation.
- 2) Countries and territories considered tax havens with respect to transactions carried out within administrative services and other non-material services.
- 3) Countries and territories regarded as tax havens due to services of a financial character (Kościński, 1996).

The aim of the published order was to help tax offices deal with income tax issues concerning personal and corporate income tax payers who cooperate with businesses registered in tax havens.

The achievements of the scientific-technical revolution have stimulated the dynamic development of tools and technological means used to conduct criminal activity. The commonness of a fast and efficient information transfer combined with unlimited possibilities of global travelling has contributed to the emergence of cross-border organized crime. Electronic systems of money transfer have made money laundering an anonymous process, which is very difficult to identify. The phenomenon of legislative inertia has become a serious problem requiring some solutions in order to effectively prevent the process of money laundering. There are still no sufficient legal regulations concerning the issuance, circulation and purchase of electronic money (Wąsowski and Wąsowski, 2001), which is a virtual record on special SVC cards or on computer hard discs. According to the Bank of International Clearing in Basel, the electronic money should be "an untraceable and anonymous payment instrument to the bearer, allowing for an easy payment made to another person in any conditions and without participation of intermediary institutions." The use of SVC cards with the microprocessor opens new possibilities for money launderers such as: payment for services and goods, transfer of money between accounts anywhere in the world and change of the money into classic means of payment without leaving any accounting trace. Unlike on-line transactions, the off-line ones preserve the anonymity of trading partners. In such cases the electronic money is usually issued for one transaction only. The so-far attempts of supervising the cyberspace have failed due to two reasons:

- 1) Technical limitations – the computing power of monitoring systems. According to some estimation by Interpol, the number of international transactions per day amounts to 70,000 and their total value equals 2 thousand million US dollars.
- 2) A protest of cyberspace users – an attack on the Internet users' freedom (Kościelniak, 1999).

According to Bill Gates, the situation is dramatic, as the development of Internet techniques have annihilated the 25 year-old efforts of counteracting money laundering. The modern tools provided by the achievements of the scientific-technical revolution and the processes of the international integration have created possibility areas for organized crime.

## **MONEY LAUNDERING AND GLOBAL ECONOMY – RELATIONS AND INFLUENCE**

It is impossible to provide an explicit definition of the negative influence of money laundering on market mechanisms, as the processes of funds legalization are one of the integral elements of organized criminal activity. No part of a finely created construction of organized crime, perfectly working in intricate mechanisms of the market games, can function in isolation. The neutralization of



at least one link of the relation chain of illegal operational activities will precipitate its failure. The denial of access to the consumption of illegitimate goods can render informal businesses insolvent, and thus cause their natural disappearance. Even a perfunctory analysis of the events in Columbia supports the thesis that the harmful influence of money laundering cannot be considered in isolation from other component pathologies of economic-financial character. The process of money laundering should be treated as a very serious threat to banking systems and market mechanisms on the macro-regional and global scale, especially when one takes into consideration the goals of organized criminal groups, the strategic significance of money laundering and the methods of its achievement.

**Table 4. The influence of money laundering on modern economy**

Area of influence	Range of influence			Structure of the area of influence
	micro	region	glob	
Corruption	yes	yes	yes	Corruption of politicians, state executives and bankers who are decision makers in the management of businesses functioning in the interest area of organized crime. Such a state of affairs provokes negative opinions and undermines credibility of state banking and financial systems.
Financial policy		yes		Lack of stabilization of a monetary system caused by unbalanced liabilities and bad assets structure, which may lead to system crises.
		yes		Unstable foreign currency and interest rates caused by sudden and short-term international money transfers.
		yes		Unexpected changes in money demand.
	yes			A risk of undermining the bank stability.
			yes	Erroneous capital allocation in global terms decreasing the value of a global product.
Rules of fair competition		yes	yes	The infringement of fair competition rules. Whatever the costs, the safe turnover of illicit funds is of prior importance to operational activities of money laundering. The infringement leads to market dominance and may give rise to a partial monopoly of laundering companies.
		yes		The disturbance of balance of goods and real estate prices causes market destabilization through a deliberate price change by applying one of money laundering methods.
		Yes		The negative influence on people's motivation to conduct a legal business activity in view of competition from secret and informal businesses which are not subject to any charges and duties in favour of the state and their personnel.
Fiscal policy		yes		Mistakes in the formulation of a fiscal policy caused by the use of erroneous statistical macroeconomic parameters.
		yes		A wrong fiscal policy demonstrated through ineffective tax collection from business enterprises, which results in wrong allocation of public expenditure.

The feedback between the closest environment of the process of money laundering and the process itself consists in stimulating the process in the first stage of the relation and counteracting it

through defensive mechanisms in the second one. A full definition of the feedback “paradox” requires some assessment of the process in three topic areas:

- 1) As a new mechanism which developed at the beginning of the 20<sup>th</sup> century, and which was not a consequence of the evolution of criminal activity. The mechanism was subject to transformations evoked by achievements of the scientific-technical revolution.
- 2) As a mechanism of appropriation defined through the infringement of narrow boundaries of lawful properties established by the socio-economic system.
- 3) Creation of new ethical and moral attitudes as a consequence of evolution of long-term development of the European cultural heritage (Jackson, 2004).

The human behaviour, which is determined by the process of evolution from the collecting era to the era of globalization, has been always expressed by a conflict between duties to the society and people’s individual needs. Money laundering as a process of the European heritage development requires some assessment with respect to: laws in force and motivation and justification of the human behaviour. This assessment should be made right at the turn of the centuries and at the moment of socio-geopolitical changes which are expressed through long-term trends characterized by revaluation.

## CONCLUSIONS

The following paper present big influence of globalization on development the phenomenon on money laundering. It is necessary to underline that is not able to provide all objective and statistical presentation of the role and significance of particular factors stimulating the expansion and evolution of the process. This is due to the following reasons:

- 1) an interdisciplinary character of the research problems,
- 2) a short period of global and social recognition of the phenomenon as a threat to national and international systems.

Therefore, the following paper has focused on the presentation of the feedback nature in the following areas:

- 1) the influence of the scientific-technical revolution on the evolution of money laundering.
- 2) the role and importance of the interstate tax competition in the evolution of funds legalization.
- 3) threats posed by the process of money laundering to economic systems.
- 4) the concept range of the feedback assessment.

The achievement of the concept uniformity of international standards and regulations of organizational-legal systems of countries is an absolute necessity for the development and implementation of an effective system of preventing money laundering with respect to cooperation of

specialized institutions with the administration of justice. The turning point in each county system of combating the process of money laundering should be adoption of law preventing the introduction of money from illegal or unknown sources into the official circulation. The law should constitute a basis for the legal and organizational system with regard to counteracting legalization of financial means. The system should be composed of consistent penal, banking law and cautionary norms.

Summarizing the paper should underline that it is impossible to define explicitly the negative influence of money laundering on the functioning of particular financial institutions and on the market mechanism in a regional and global dimension. It is presumed, however, that managers of financial institutions regard the legalization of illegal funds as a threat mainly to the global economy. In their opinion, the phenomenon leads predominantly to wrong allocation of capital in global terms and to the weakening of the effectiveness of the market mechanism. Hence, the presumption can be made that managers overlook the threats of money laundering to the functioning of market mechanisms or financial institutions on a regional scale.

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## CHOICE OF LOCATION FOR SERVICE INTERNATIONALIZATION STRATEGY FOR SMES

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### ABSTRACT

Any company while going international faces several difficulties and limitations. A service company has some extra limitations due to the nature of the services it provides. Moreover, it is considered that the smaller and newer the company is, the more limitations it faces and the more difficult the process becomes. However, how can a small new service company internationalize?

The current study is a case analysis of a small Portuguese start-up company, which is working on the development, and implementation of a retail chain of cosmetics stores. The aim of the current study is to identify the key factors, which make the process of internationalization of such a company possible. The impact of the liability of foreignness, liability of outsidership, liability of smallness and newness, specifics of the process of the service internationalization and entrepreneurial aspect will be studied.

**Keywords:** *Service Internationalization, Small and Medium Enterprises, Entrepreneurship, Location Choice, Networks, Entrepreneurial Experience.*

### INTRODUCTION

The rapid growth of globalisation, with the development of technology and service innovation going further every day, coupled with tough competition obliges companies to search for more sophisticated competitive advantages and develop international services. Besides, it is known that lately the economy has shifted towards services. About 75% of employment and gross national products are contributed by service activities in North America and Europe (Cicic et al, 1999, Lommelen et al., 2005). The process of service internationalization is also more complex than the process of goods internationalization.

Normally internationalization is connected with certain difficulties: liability of foreignness (Johanson & Vahlne, 1977; Zaheer, 1995, Hymer, 1960) and liability of outsidership (Johanson & Vahlne, 2009). Overcoming those liabilities requires a company to use many resources. If small companies do not have many resources available, they also face the liability of smallness (Aldrich & Audter, 1986) and the liability of newness (Singh et al 1986). How do they manage to go international? Do all

entrepreneurs manage the internationalization process the same way? Is entrepreneurial activity important for the process of internationalization?

There is not a wide variety of studies on service internationalization or the internationalization process for retail SMEs. When speaking about internationalization, some product supply for a foreign market is usually mentioned (Johanson & Vahlne, 1977, 2009; Oviatt & McDougall 1994, 2005), however the contemporary business world is providing us with far more opportunities. The existing theories and approaches will be analysed critically in order to find differences and similarities between the product and service internationalization processes. Within the framework of the current study a case of a PAR Company will be analysed. This company is working on opening retail chains of select cosmetics and perfumery stores. This company is a retail company which was created in February 2013 and which has already started the process of internationalization in Turkey, Brazil and Europe. This business case perfectly corresponds with our research question. The business case analysis was conducted using the Systematic Combining Approach (Dubois & Gadde 2002).

## **THEORETICAL BACKGROUND: INTERNATIONALIZATION CONSTRAINTS**

### *Liability of Foreignness*

In the academic literature there are studies describing the first constraint of internationalization – the liability of foreignness, which is connected with the fact that the new market entry is always facing a disadvantage of a lack of knowledge and the unprivileged position of the firm compared to local companies.

Hymer (1960) managed to identify several factors influencing a company when going international. The companies entering a foreign market have far less *information* about the market than the natives. Besides, local companies might have a different level of governmental support or the government might create additional *barriers* for foreign companies to enter. Finally, the currency rates fluctuation might create a *currency risk*, which in some cases might bring significant losses for the company. All these factors serve to accumulate an additional cost for the company in going international and might influence the success of such an initiative. Zaheer (1995) refers to the same factors defined by Hymer (1960), though he discovers that the firm might have several advantages, which compensate for the additional costs of doing business abroad. It is not always beneficial to copy local practices while doing business in another country since the company's own practices might be more efficient and provide a competitive advantage over local companies.

According to the Uppsala model (Johanson & Vahlne, 1977), companies tend to formalize their entries incrementally – an establishment chain. They tend first to enter the psychically *closest market* because

the environment in those markets is easier to understand. Then companies tend to enter other markets gradually.

The basic assumptions of the Uppsala model are bounded by rationality and uncertainty. This model is dynamic: to be able to internationalize, the company has to acquire experiential knowledge, which in its turn can only be acquired while internationalizing. The firm, while making the decision regarding the location of the internationalization tends to undertake incremental commitment decisions, choosing the closest countries in terms of physical distance, in order to minimise the uncertainty of the market. Thus, the internationalization process necessarily requires many of the company's *resources* in order to cover all the costs of doing business abroad and the time necessary for gaining experiential knowledge.

#### *Liability of Outsidership*

Twenty-two years later, Johanson and Vahlne (2009) consider outsidership in terms of a relevant *network* in the market rather than unfamiliarity, the main source of the uncertainty. Still considering knowledge creation as one of the fundamental processes and the biggest challenges for a company in the foreign market, they state that the company is using the network for searching and obtaining necessary information.

The growth of the level of knowledge might have a positive or negative impact on building trust and commitment. The reconsidered position of the authors states that the company, choosing the location for the internationalization, will go to the market where it and its partners see more *opportunities*. Moreover, in the situation where the company has no local partners yet, it will tend to choose the market where the opportunities for obtaining business connections are higher. The authors also argue that, while exploring the opportunity, such variables as trust, knowledge and commitment to the relationships should be taken into account.

Oviatt and McDougall in 1994 argue that "global start-ups" are not just uninteresting anomalies as was considered earlier, but new entities in the international market deserving detailed study. They define "... an international new venture as a business organization, that from inception, seeks to derive significant competitive advantage from the use of resources and the sale of outputs in multiple countries" (p. 49). The authors mention that the Uppsala Model is applicable for slowly internationalizing companies.

Oviatt and McDougall (2009) also pay attention to such elements as licensing and network alliances. They define International entrepreneurship as "the discovery, enactment, evaluation, and exploitation of opportunities - across national borders - to create future goods and services" (p.7). Oviatt and McDougall (1994, 2009) are moving us further towards understanding the nature of born global

companies; however, this article considers product internationalization and so does not answer our research question.

Schweizer, Vahlne and Johanson (2010) propose a more complex view of the internationalization process. They consider that internationalization should be seen as either a by-product of a firm's attempt to improve its position within the network or because of *entrepreneurial action*. In the article the authors suggest improvements to Johanson and Vahlne's (2009) business network internationalization process model, emphasising the entrepreneurial aspects of the process.

They consider the environment of the firm as dynamic, nonlinear and laced with networks. The model takes into account the importance of entrepreneurial activities, such as those needed for launching a born global company. Authors add such state variables as *entrepreneurial capabilities* as a supplement to knowledge and opportunities. Schweizer et al (2010) state that entrepreneurs operate under conditions of uncertainty and ambiguity, which causes entrepreneurial hesitation, but also allows the entrepreneur to choose more freely among the objectives that only become visible during the process.

Opportunity exploration and opportunity creation are basic entrepreneurial activities (Brito & Meneses, 2007). However, the way these activities are carried out, depends on each case. To go international, firms might use a relationship approach: they use personal and existing business relationships in order to gain information about the potential partnerships to be established and connections to be made.

The previous *experience* of the entrepreneur is also an important factor. Brockhaus and Horwitz (1986) argue that entrepreneurs do not just learn from their previous experience, but profit from it. Entrepreneurs managing their second enterprise, tend to do better than those with their first one, both in terms of sales and profits. This can also be applied to entrepreneurial internationalization experience: in their study, Reuber & Fischer (1997) have found evidence to support their hypothesis that the management team with previous international experience uses a strategic partnership to a greater extent, promoting faster and more efficient internationalization of the firm. In a study conducted by Spence & Crick (2007), the rapid and successful internationalization process of the companies studied is explained by the fact that those companies were "hiring an executive with relevant experience whose main role was to guide the firm to strategic international development" (Spence & Crick, 2007, p. 226). Moreover, Andersson (2011) argues that a company can go international in a very short period of time, using the entrepreneur's prior knowledge and network. The strategy, which is "based on an entrepreneur's knowledge, links to foreign markets and a co-operative arrangement with network partners, can be successful" (Andersson, 2011, p.638)

The research conducted by Andersson (2000), demonstrates that entrepreneurs are not all the same. They demonstrate different behavioural patterns, they are concerned with different aspects of the



business and they choose different strategies for their companies. There are three *types of the entrepreneurs*: Technical, Marketing and Structural:

- Technical Entrepreneur – his main concern is technology; the product and production development are his strategic priorities. Internationalization is not the key priority, however, a foreign order might lead to export internationalization or to a licensing agreement, as long as this type of activities do not require many resources. The market choice depends on which countries are making the inquiries.
- Marketing Entrepreneur – the idea of the product/business for those entrepreneurs emerges from an existing need in the market and an idea of how to fulfil this need. He is proactive in the internationalization process and aims to find new channels to reach consumers. He is willing to establish new international ventures. This type of entrepreneur might choose markets in accordance with personal preferences and connections, instead of using an approach that is more rational.
- Structural Entrepreneur – He is aiming to restructure companies and industries. He acts in companies operating in mature industries and he implements his strategy at a corporate level. The process of internationalization is more the consequence of the entire strategy, rather than a goal for him. Markets are chosen according to the competitive situation.

The creation of a competitive advantage for SME while going international promotes the entrepreneur to *innovate*. Aron O'Cass & Weerawardena, (2009) argue “that the SME internationalisation process is an entrepreneurial activity and entrepreneurial SMEs pursuing international market entry actively undertake innovation in all areas of value-creating activities” (O'Cass & Weerawardena, 2009, p. 1338). Therefore, the capacity of the entrepreneur to innovate is an important factor in business success. According to Frishammar & Andersson (2009) it is also vital for the entrepreneur to be *proactive*. Their study shows that this has a far greater influence on the success of SMEs internationalization than strategic orientations.

#### *Liability of Smallness and newness*

In 1986, Aldrich & Auster conducted a study proving that for all types of firms – small and large, there are both advantages and disadvantages, and there are strategies to overcome these disadvantages. Among the liabilities for small and new companies the authors define problems of raising *capital*, meeting all the *government requirements* and being *competitive in terms of labour* with larger organizations, however those paths are connected with the risk of increased dependence and possible loss of control. For small companies, there are several strategies for survival: partnership, franchising, contracting and being acquired. Aldrich & Auster (1986) state that small and new companies tend to have a higher mortality rate than larger, older ones. They draw the conclusion that normally, the price

of surviving, getting older and growing is high for many companies. They have to lose their autonomy.

Studying the liability of newness, Singh et al (1986) also conclude that the lifespan of new organizations is much shorter than for more mature ones. However, authors draw the conclusion that the acquisition of legitimacy by the organization significantly attenuates such liability. Singh et al (1986) also suggest that the attempts of the company to get institutional support might significantly increase its chance of survival.

#### *The specifics of the service internationalization process*

The main reason why the processes of service and product internationalization cannot be similar is hidden in the nature of the entities: “product” and “service”.

The key differences between product and service from the marketing and logistics point of view are the following. Firstly, products have physical distribution channels in order to reach the customer, while the majority of pure services do not need these (Demirkan et al, 2011). Therefore, talking about different entry modes while expanding into a new country, such as intermediaries, might not be relevant in some service companies’ cases. Secondly, the level of the personalization of the service is always much higher, as long as the service consumer always expects an individual approach, while good customers are purchasing standardized pieces very often (Patterson & Cicic, 1995; Cant & van Heerden, 2005). Thirdly, the product is a tangible entity; the customer has an opportunity to test it before buying, while the purchase of a service in many cases is based on *trust* (Patterson & Cicic, 1995, Goerzen & Makino, 2007; Boddewyn et al, 1986, Demirkan et al, 2011). Fourthly, the processes of creating products and services are totally different: the majority of products require machinery and raw materials, while services require skills, experience, competencies and motivation of the person who delivers the service (Cant & van Heerden, 2005; Goerzen & Makino, 2007). Fifthly, growing the business for the product company means producing more and reaching new clients, while for the service company expansion also requires improvement of the characteristics of the service provider (Demirkan et al, 2011; Cant & van Heerden, 2005, Boddewyn et al, 1986).

Therefore, we can see that all of the processes starting from creation and finishing with approaching the customer to provide goods and services are different; therefore, the internationalization paths of the goods providers and service providers are different too. For the service companies the entry mode, the production and the distribution channel should vary. The adaptation of the service for entering the new country is also more complicated rather than the adaptation of a product, as long as it implies taking further into consideration the cultural differences, the language, the diversification and access to technologies in the country, the behavioural norms and standards, the economic issues and so on.

In 1986, Boddewyn et al claim that one of the major difficulties in the process of service internationalization is associated with licensing and management contracts. "In their pure forms, they do not involve any equity since only technology or management skills are sold to another party [Buckley 1983b]. Besides, they use the "external market" rather than "internalization" within the international firm as a mode of transfer [Buckley and Casson 1985, p. 51]. Therefore, they cannot be considered forms of direct foreign investment" (p.47). The authors also emphasise the fact that the trade process in the case of services is losing its *clarity and transparency* – the money is paid, but there is no way either to estimate the process of production of the service or to control its quality.

Boddewyn et al (1896) also define several ownership advantages for service companies. Firstly, it is an Internalization Advantage: in the case of customer service, the internalization process might be conducted even in the absence of equity investments. Secondly, it is Location Advantage: in terms of location requirements, international services have no special problems. In 1995, Patterson & Cicic claim that due to the intangibility of the service, providers are limited in their *entry mode options*; meanwhile the entry mode is a key success factor for service internationalization. They also state that for those services, which require a lot of interaction between the customer and service provider, the *cultural aspect* is one of the key factors.

The development of the global economy, globalization and technological development have been changing the world rapidly. The development and spread of all kinds of communication technologies has moved service companies to a new level. In 1999, Cicic et al (1999) conducted research in order to develop a model of service internationalization. Some stages of the processes and service internationalization are similar to product internationalization; however, there are many stages, which are different. They define "hard" services – not pure services, but services embedded in goods, and "soft" services – the standard pure services. The "hard" services, due to their high similarity with goods are more likely to internationalize via standard and traditional entry modes; they are less influenced by cultural and technological differences, while "soft" services require a totally different approach, and the entry mode for such services should be adapted. The "hard" services due to their tangible nature have to pass all the phases: Pre-International Stage, Exporting Stage and Higher Commitment Stage, while "soft" services do not require the exporting stage due to their intangible nature. Retail service is a soft service according to this classification. Ergo, the cultural aspect, as well as the psychological aspect and the presence of necessary skills and expertise are the most important.

## CONCEPTUAL FRAMEWORK FOR ANALYSIS

Any company entering the foreign market faces difficulties depending on the type of the company and the types of the goods/services the company offers.

Any company faces two major disadvantages. The first one is the liability of foreignness – disadvantages connected with lack of information about the host country market (Johanson & Vahlne, 1977; Hymer, 1960; Zaheer, 1995), an unprivileged position in the eyes of the local government (Hymer, 1960; Zaheer, 1995), higher costs of doing business abroad in comparison to local companies (Hymer, 1960; Zaheer, 1995), the currency risk (Hymer, 1960) and the availability of resources (Johanson & Vahlne, 1977). The second one is the liability of outsidership – the lack of a network in the target country, difficulties of identifying market opportunities, inability to make business connections and difficulty in gaining mutual trust with local partners (Johanson & Vahlne, 2009). Besides, the internationalization strategy might depend a lot on entrepreneurial action (Schweizer, et al., 2010), the type of the entrepreneur, as well as on his previous experience and network (Brockhaus & Horwitz 1986; Reuber & Fischer 1997; Andersson 2000, 2011; Spence & Crick, 2007, Johanson & Vahlne, 2009). Moreover, the international entrepreneur should be innovative and proactive (O'Cass & Weerawardena, 2009; Frishammar & Andersson, 2009).

However, when a new, small company is willing to internationalize, there appear to be even more constraints – liability of newness and smallness - such issues as problems of raising capital, meeting all the government requirements and being competitive in terms of labour with larger organizations (Aldrich & Auster, 1986). There is also a very high probability of early failure in a young company, and even if it manages to survive, in many cases it risks losing its independence (Aldrich & Auster, 1986).

When a new small service company is searching for an opportunity to go international, it should be taking into account the types of services it is providing and the specific nature of those services. Depending on the type of service, “hard” and “soft” services follow different internationalization paths (Cicic et al, 1995). It is important to choose the entry mode carefully (Patterson & Cicic 1995). The company should also take into account the difficulty of controlling the quality and the price of the service due to its intangible nature, and consider the psychological and cultural differences of the customers in the country of destination and be able to adapt the service correspondingly (Boddewyn et al 1896). For a consumer to purchase a service, the trust factor is also essential (Patterson & Cicic, 1995, Goerzen & Makino, 2007; Boddewyn et al, 1986, Demirkan et al, 2011). Finally, it is important to mention that the market is not always a passive part in the internationalization process. In many cases, the market attracts the company there (Buvik, 2002; Brito & Meneses, 2007).

Therefore, we can define several challenges new service SMEs might face during their internationalization process (Table 1)

Liability of Foreignness	Market Information (MI)	Cost of Doing Business Abroad (CDBA)
	Government Barriers (GB)	Physical Distance (PD)
	Currency Fluctuation (CF)	Resources Availability (RA)
Liability of Outsidership	Relevant Network (RN)	Previous Experience (PE)
	Market Opportunities (MO)	Types of Entrepreneur (TE)
	Entrepreneurial Action (EA)	Capability to Innovate (CI)
	Market Call (MC)	Proactive Attitude (PA)
Liability of Smallness & Newness	Capital Availability (CAv)	Labour Competitiveness (LC)
	Meeting Governmental Requirements (MGR)	
Specifics of Service Internationalization	Lack of Transparency and Clarity (LTC)	Cultural Aspect (CAs)
	Entry Mode Limitations (EML)	Trust Based (TB)

Table 1. *Factors influencing the process of internationalization of service SMEs*

## METHODOLOGY

The methodology used for the current research is qualitative analysis. Within the framework of this study, the case study strategy will be used as long as such a strategy allows understanding of dynamic changes within single settings and is helpful to cope with the fact of intangibility of many resources in an organization (Hoskisson et al, 1999). The information was collected using the official documents of the company and conducting interviews with its founders, asking them to expound their view of the factors influencing the process of the internationalization of the company. – A triangulation approach was used, which is usual for case studies. The sources of evidence were combined while shifting between analysis and interpretation, which allows for collecting and double-checking findings (Dubbois & Gadde, 2002)

## THE CASE

The case analysed in this study is a Portuguese start-up company which was founded in 2013 and is currently working on a project to create a new cosmetics brand and open its own brand and multi-brand cosmetics stores in Europe, Turkey and Brazil. Besides products, the concept of the brand, created by this company, assumes intense interaction with the clients. The two core values of the brand, personalization and emotional connection, assume a number of service activities. The company is a “hard” service provider.

The dimension of the company is impressively small. It was founded by 3 entrepreneurs who had previous experience in 3 key areas of the business: Retail & Logistics, Training & RD and Marketing & Communication.

Pedro has more than 15 years of experience in Retail & Logistics, opening and managing selective perfumery stores. He created and developed a retail chain for selective perfumeries, which became a

reference in Brazil, winning the ALSHOP/VISA award in 2004, 2005 and 2006 for the best shop concept.

António is a chemical engineer and has 32 years of experience as a General Manager in a company, which was the biggest distributor of a select cosmetics brand in Portugal. While working for a Portuguese selective perfume company, he was responsible for launching international selective brands. For 7 years, António was the president of the Portuguese association of the cosmetics industry and a member of the European cosmetics and personnel care association COLIPA, based in Brussels. He is also currently working as a business consultant for a Portuguese Consultancy Company.

Rogério has 21 years of experience in designing and executing marketing and communication plans. He has a rich experience of working in the international business environment. Rogério has managed many Portuguese artists' careers, as he has been working in the music industry for 15 years, organizing marketing campaigns with TV channels, radio stations, magazines and social media. He has also developed projects with international partners.

Besides the three founders there are 4 more people working in the company. We found this case interesting, since we can analyse a situation where 7 people are preparing and implementing such a global project.

## DISCUSSION

Interviews were conducted with the founders and information collected. The importance of the factors mentioned in table 1 was studied. The following results were noted (table 2) (the numbers represent the number of times the issue was mentioned in the interviews and the documents):

Liability of Foreignness				Liability of Outsidership				Liab. Smallness & Newness		Spec. Service Internationalization	
MI	11	CDBA	0	RN	12	PE	14	CAv	4	LTC	0
GB	0	RA	0	MO	12	TE	6	MGR	1	EML	3
CF	0			EA	12	CI	13	LC	0	CAs	6
PD	0			MC	6	PA	10			TB	0

Table 2. *The factors influencing the process of internationalization of PAR*

It is interesting to note that from the results, the most relevant factor for PAR is the previous Experience of the Entrepreneurs (in line with Brockhaus & Horwitz, 1986; Reuber & Fischer, 1997; Andersson, 2011; Spence & Crick, 2007). António claimed in the interview: "Experience is the fundamental basis of the process. Without it, the founders would not have been able to advance with the project".

The second important factor is the Types of Entrepreneurs; though there are not so many references, the impact of this factor is significant. PAR is the case where all 3 types are working together, complementing each other in terms of knowledge. Based on the actions, main concerns, core

competence and strategies of each of the founders, we can conclude that Pedro is a Structural Entrepreneur, António is a Technical Entrepreneur and Rogério is a Marketing Entrepreneur (Andersson, 2000; Brito & Meneses, 2007).

The next most important factor is Capability to Innovate. (O'Cass & Weerawardena, 2009) The experience in the three key areas not only helps the founders to organize and manage the business processes, but it also allows them to introduce new activities and services to the business which "has remained the same for the last dozen years, where all the stimuli are based on price" (António). They are capable of identifying the weak points of the business and presenting an innovative solution to gain competitive advantages.

Market Opportunity (Johanson & Vahlne, 2009) is also an important factor. The entrepreneurs are able to define existing opportunities and develop a project in accordance with them. To do so, the entrepreneurs should be proactive (Frishammar & Andersson, 2009), which is the fifth important factor for the current case. The Proactive Attitude allows entrepreneurs to identify, analyse and take advantage of market opportunity.

In the case of PAR, market is not a passive part of the process of internationalization. The three founders were contacted by business partners from Turkey with a view of developing a project specifically for the Turkish market. After this call, the current market situation was carefully studied and all the necessary information was obtained in order to make sure the opportunity existed. Adequate actions were undertaken to develop and implement the project. Thus, Market Call (Buvik, 2002; Brito & Meneses, 2007), Market Information (Johanson & Vahlne, 1977; Hymer, 1960; Zaheer, 1995) and Entrepreneurial Action (Schweizer, Johanson & Vahlne, 2010) are the next most relevant factors.

Some potential markets, seemed very attractive at first glance, but it became apparent that entry modes are very limited to this market. "There are countries in Central and South America where there are cartels" (António). Such organisations limit the entry modes and complicate the entry process. For these countries, PAR had to delay the process of internationalization - the Entry Mode limitations Factor (Patterson & Cicic 1995)

One of the biggest concerns named by the founders is the adaptation of the concept of the store, the brand identity and the communication strategy to make it attractive for young consumers in the destination countries. However, having partners in the destination countries facilitates the process of knowledge acquisition and negotiations. The large number of network connections also facilitates an access to suppliers, consultants, potential business partners, etc. Therefore, Cultural Aspect (Boddewyn et al 1896) and Relevant Network (Reuber & Fisher, 1997; Andersson 2011; Johanson & Vahlne, 2009) are of vital importance for the PAR case.

Capital Availability (Aldrich & Auster, 1986) is also an important factor for success in the process of internationalization for PAR. The investors and business partners are currently being sought. "The idea is very interesting; the project is innovative, so fortunately we cannot complain about a lack of investor interest to join us" (Rogerio). Meeting Governmental Requirements (Aldrich & Auster, 1986) is also a subject of concern; however, it is not a difficulty in PAR's case since according to António "present legislation facilitates a lot of the export process".

Finally, such factors as Government Barriers (Hymer, 1960; Zaheer, 1995), Currency Fluctuation (Hymer, 1960), Cost of Doing Business Abroad (Hymer, 1960; Zaheer, 1995), Physical Distance (Johanson & Vahlne, 2009), Labour Competitiveness (Aldrich & Auster, 1986) and Lack of Transparency and Clarity (Boddewyn et al 1996) seem not to be relevant to the current stage of PAR's internationalization process.

## CONCLUSIONS AND LIMITATIONS

The case provides us with an example of how a company which only consists of 7 people is able to work on a projected retail chain of cosmetics stores which is supposed to be implemented on 3 continents.

We were able to witness the importance of entrepreneurial characteristics such as previous experience, the type the entrepreneur belongs to, innovation capabilities, proactivity and capacity to undertake certain actions. In the case of PAR, the entire project would have been impossible without the founders having these characteristics. The founders' network is very important for the development of the project as well, since it is a source of getting market information and establishing the business connections.

We can conclude that the process of internationalizing a service company is more complex than the internationalization of a product company; however, such a small company managed to do it. In this case, the barriers are successfully overcome due to the capabilities of the management team.

This case stresses Hambrick and Mason's (1984) idea that the company is often a reflection of its management team. In addition, we can conclude that when the 3 types of entrepreneurs collaborate and do business together, the internationalization process happens much faster, since they complement each other in terms of knowledge, and such collaboration helps in overcoming the obstacles the company faces during the internationalization process (Brito & Meneses, 2007).

The case is also interesting because the market plays an active role in the process of internationalization. The founders were asked to develop a project for a specific market, which later adapted for other countries. There are other factors, which influence the process of internationalization of the company such as market opportunity, market information, entry mode



limitations, cultural aspect, capital availability and meeting government requirements. However, the entrepreneurial spirit of the founders led them to recognize opportunities, and made them willing to undertake the risk.

The main limitation of the current research is that only one case was studied, therefore we suggest a more profound investigation be conducted with the participation of more companies with a profile similar to PAR's.

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# RESPONSIBLE MANAGEMENT DURING THE FIRM'S INTERNATIONALIZATION TO BASE-OF-THE-PYRAMID COUNTRIES: A CASE-STUDY OF THE FABER- CASTELL GROUP

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## ABSTRACT

Globalization has changed the international business environment, enabling firms to operate in more global and complex contexts with an increasing impact on society and the natural environment. Simultaneously, Responsible Business Practices (RBP) are growing in importance - not only domestically, but also during the firm's internationalization to different contexts, such as from developed to base-of-the-pyramid countries (BOPs). Hence, the goal of this research is to assess whether and how a company, headquartered in the developed world, adopts and adapts RBP when internationalizing to BOPs. For this purpose, a qualitative methodology in form of a case study of the *Faber-Castell Group*, supported by a semi-structured interview with an internal key person in corporate sustainability, was used to study the international RBP behavior of the company. This research creates value in the field of International Business Studies, by integrating RBP, FDI and international business ethics in different contexts, and demonstrating how sustainable international management can be operationalized. The RBP adoption in BOPs depends on strong collaboration and dialogue networks with entities of different kinds that pursue profound local knowledge; however, a basic standardized RBP framework in combination with some RBP adaptation is necessary for a successful RBP adoption that results in a variety of internal and external benefits.

**Keywords:** *International Business (Ethics); Internationalization; Responsible Business Practices; Adoption and Adaptation; Sustainable Management; Base-of-the Pyramid*

## INTRODUCTION

As a matter of fact, globalization has changed the international business environment by enabling firms to operate in more global and rapidly changing contexts (Dahlsrud, 2008) in which the imperatives of global integration and local responsiveness are becoming increasingly critical for internationally operating companies (Bartlett and Ghoshal, 2002).

Moreover, whilst global governance lost its ability to effectively regulate affairs such as the way business affects social and environmental matters, some firms are gaining in impact and influence (Scherer and Palazzo, 2011) causing the need for responsible business practices (RBP) that lead to sustainable development (Landrum, 2007), defined as a “development that meets the needs of the present without compromising the ability of future generations to meet their own needs” (WCED, 1987, p.37).

Nevertheless, the debate on the firm’s nature in society and the relevance of RBP exists (Scherer and Palazzo, 2011; Friedman, 1970), yet currently strategies adding to business value, sustainable success and development are augmenting in importance, leading to an increased range of responsibilities that guide the firms’ global decision-making processes (Bardy et al., 2012).

Besides, the majority of countries have been considered developing or emerging in 2010 (Choi et al., 2010), existing a need for these countries to get more globally integrated in international business research, amongst others through RBP and sustainable development (UNCTAD, 2013; Choi et al., 2010).

The motivation to do more research on RBP and sustainable management in BOPs is associated with the future need of linking economic and social value creation, as well as the fact that far more research has been made on RBP in developed countries, than for the developing world, where a stronger need for corporate RBP exists since there are fewer institutions providing general social goods (Dobers and Halme, 2009). Furthermore, research on RBP implementation is scarce once the adoption of RBP being a changing process within firms (Lindgreen et al., 2009). Therefore, further research on the complexity of the RBP concept and its successful adoption across different cultures is required (Bondy and Starkey, 2014; Kleine and von Hauff, 2009; Lindgreen et al., 2009) and specific case studies of firms that integrate RBP, business ethics and FDI issues needed, in order to get a better understanding of the influence of contextual components that firms experience when designing their RBP strategies (Bardy et al., 2012).

Therefore, the focus of this research is on the impact of context on organizational behavior (Johns, 2006) by creating an attempt to answer the questions of whether and how a firm from the developed world adopts and adapts RBP when internationalizing to BOPs. This will be achieved by confronting theory and practice through a case study of a German-based company with responsibilities in BOPs and thus adds to the international management literature by addressing the recommendations mentioned earlier. In the following sections, the recent literature on RBP and BOPs will be reviewed, the adopted research methodology explained and the case study discussed. Conclusions, research limitations, as well as inputs for future research will then follow.

## **BUSINESS AND SOCIETY: RESPONSIBLE BUSINESS PRACTICES (RBP)**

The business - society relationship is based on the interdependence of both parts and has generated strong criticism on our business system in the past, emphasizing the need that “companies must take the lead in bringing business and society back together” (Porter and Kramer, 2011; p.4) and thus causing business’ cumulative awareness of RBP, defined as a company’s voluntary activities that link social and environmental concerns with its business operations, by ethically interacting with its stakeholders (Van Marrewijk, 2003).

In fact, RBP is a complex and multi-disciplinary notion (Lindgreen et al., 2009) that has a variety of related concepts which include Corporate Sustainability (Van Marrewijk, 2003), Stakeholder Management (Choi and Wang, 2009), Corporate Social Responsibility (Carroll and Shabana, 2010) or Corporate Shared Value (Porter and Kramer, 2011), for instance. Most of these approaches differ from each other, but are based on the same general idea of business’ voluntary engagement in practices that favor its surroundings (Van Marrewijk, 2003). In this research, the same happens for RBP by integrating all related concepts.

Besides, in an era of increased public exposure through modern communication channels that enable a faster spread of information, a key proposition is that firms should pursue a triple bottom line, considering their economic, environmental and social performance and impact simultaneously and thus create corporate sustainability (Goel, 2010). Actually, it was found out that better relations to stakeholders lead to increased shareholder value in the long term (Choi and Wang, 2009), making RBP an indispensable management tool for the implementation of a successful business strategy (Dahlsrud, 2008). Here, RBP include firm responsibilities of a multidimensional nature (Carroll, 1991): the firm’s economic responsibility (producing goods and services that society needs and sell them at a fair price, maintain competitiveness and act efficiently, in order to be able to generate sufficient income to pay its bills and reward its shareholders (Carroll and Buchholtz, 2011)), legal responsibility (performing within regional or local legal obligations (Carroll and Shabana, 2010)), ethical responsibility (acting within social mores that are not codified by legislation (Jamali and Mirshak, 2007) and lastly, philanthropic responsibility (the voluntary contribution of the firm’s resources to society (Carroll and Buchholtz, 2011)). In short, modern firms have to assume responsibilities that go beyond the fulfillment of their missions (Jamali and Mirshak, 2007).

## **RBP ADOPTION**

Recently, RBP forms and theories evolved, demonstrating that they might be accompanied by benefits for business when applied strategically (Porter and Kramer, 2011; Choi and Wang, 2009).

Basically speaking, there are three RBP forms firms can apply, in order to operationalize their

responsibilities: Philanthropic Behavior, Integration and Innovation (Halme and Laurila, 2009). While Philanthropic Behavior means concentrating on RBP that take place outside the firm's core business activities and does not produce direct benefits for the company, the idea of Integration aims more responsible behavior in existing core operations (e.g. paying just wages, stakeholder management, eco-efficient production) and thus succeeds to create benefits related to the firm's reputation, risk reduction and cost-savings (idem.). Innovation, on the other hand, intends to create new business models or implement strategies that solve or at least alleviate societal problems while simultaneously creating strong business benefits (idem.).

Now, efforts have been made to describe the organizational process of RBP adoption; however, it is argued that this adoption is a company-specific process, meaning that every firm needs to give its own individual meaning to RBP action (Cramer et al., 2010). Here, a practical framework for RBP adoption is suggested by the German Council for Sustainable Development (GCSD) (2006), for instance, that allows managers a better organization of the RBP implementation process in general and includes the following steps (GCSD, 2006): (1) the identification of the firm's intention to engage in RBP and thus create a win-win situation for itself and its stakeholders., including an analysis of the firm's status quo and its surroundings (e.g. strategic goals, availability of resources, RBP activities of competitors, RBP forms and effects). (2) The definition of the firm's focal points and the establishment of RBP goals to individualize its RBP action, referring to factors such as the firm's philosophy, the aims of its action, sector-relevant issues, the firm's capacity and legal context, stakeholder interests and the definition of the firm's RBP to approach them. (3) The establishment of internal agreement and management commitment to certain RBP action, as well as clearly defined responsibilities are needed for RBP integration that can be achieved through codes of conduct, internal or industry-specific standards and management systems, for instance, and finally (4) RBP reporting, as well as internal and external stakeholder communication of RBP action are part of the continuous RBP improvement process and fundamental, in order to create more transparency and credibility (Kleine and von Hauff, 2009). Reporting can be done via GRI Guidelines, audits and certifications and through regular revisions by representatives of the industry and stakeholders, relevant, detailed and comparable information can be gathered. Moreover, the communication of RBP goals and action to all stakeholders, and thus adequate communication channels are of the utmost importance (GCSD, 2006) and in order to analyze indicators, goals and areas of action more properly, the Integrative Sustainability Triangle can be applied (see Kleine and von Hauff, 2009).

This process seems to be a useful tool for RBP adoption and following the steps is easy in well-known domestic market contexts. Yet, the question remains whether firms also proceed in this manner when operating abroad. The following sections will shed some light on this issue.

## **LINKING RBP AND THE FIRM'S INTERNATIONALIZATION PROCESS TO BOPS**

De facto, global markets are more dynamic and diverse than domestic ones (Alon and Jaffe, 2013) and thus a variety of aspects need to be considered when linking RBP to the firm's internationalization process (e.g. contextual components that may influence RBP action and that firms experience when developing their RBP abroad).

The majority of countries have been considered developing or emerging in 2010 (about 80% of the world's population) and will be held as BOPs, namely (1) developing and (2) emerging countries (Choi et al., 2010) in the context of this research. BOPs represent great market opportunities and often provide lower relative labor costs that attract increasingly more firms headquartered in the developed world. Unfortunately, regulation inefficiencies and imprecision of suitable international business behavior exist (Scherer and Palazzo, 2011) and are serious aspects in this context as firms may exploit them for their purposes and act irresponsibly abroad (e.g. corruption or social/environmental dumping practices). Besides, due to the existing cultural, economic, political and legal diversity that prevails between most developed countries and BOPs, there is a certain danger of ignoring different context-specific perspectives on RBP, and corporate misbehavior may also be a result of that (Dobers and Halme, 2009). Firms may be willing to contribute to sustainable local development, but without a proper analysis of what is really needed and understood as RBP, there won't be such a win-win situation and the firm's will to act responsibly might be understood quite negatively. It results from this that there is a growing importance of strategic RBP in BOPs that prevent negative externalities of insufficient local knowledge or even mere goal achievement, that strengthen sustainable international business and are accompanied by gains in competitive advantage, innovation and added value (Ganescu, 2012; Landrum, 2007). But what exactly is understood as fair behavior in each context, who defines what a specific community really needs and how do firms proceed to be able to implement successful RBP action in BOPs?

Certainly, the degree of context-specific RBP adaptation depends on the management's global perspective of the firm (Alon and Jaffe, 2013). In Perlmutter's (1969) line of thinking, this would mean that an ethnocentric RBP orientation would imply RBP standardization; a polycentric orientation strong RBP adaptation with subsidiaries developing their own strategy; a regiocentric orientation would develop one RBP strategy per region; and a geocentric view global RBP integration with some context-specific adaptations. Bondy and Starkey (2014) emphasize the on-going debate on whether RBP adoption should focus on global or local issues, and Arthaud-Day (2005) illustrates that there is a direct link between international business strategy and responsible business behavior. In that line of thinking, global firms would define standardized RBP wherever they operate; Multinationals would adopt

diverse RBP that would differ across contexts; Internationals would adopt different RBP in their home and host countries and Transnationals would adopt a mix of both global RBP integration in combination with an adaptation of this strategies to context-specific needs (idem.). Here, local managers with strong local knowledge of what a specific community really needs and understands as RBP are fundamental (idem.).

However, even once having obtained local knowledge on ethical values and RBP understanding, doubts start with which values to follow (those of the firm's home market (absolutism), the ones of the host market (relativism) or even international/universal guidelines (universalism) (Alon and Jaffe, 2013), agreed minimum values shared across cultural boundaries (Melé and Sánchez- Runde, 2013), such as the International Standardization Organization's (ISO) standards, the Organization for Economic Co-operation and Development's (OECD) guidelines for multinational enterprises, the Global Reporting Initiative (GRI) guidelines, the UN Global Compact or the International Labour Organization's (ILO) Convention.

Additionally, successful international RBP adoption requires sensitivity to host countries' needs (Bondy and Starkey, 2014; Lindgreen et al., 2009) that can be obtained via collaboration (Baumann-Pauly et al., 2013) and is based on a partnership selection process- a decision that is influenced by each firm's strategic goals- including (1) the assessment of possible partners, (2) partnership selection criteria setting and choice, (3) contact and (4) communication between partners on ideas for joint RBP adoption (Seitanidi and Crane, 2009). It comprises different kinds of collaboration, such as external engagement with local or international organizations (IOs), Non-governmental organizations (NGOs), intra-/inter-industrial collaboration, governmental institutions or external stakeholders and via RBP networks (e.g. CSR Europe, World Business Council for Sustainable Development (WBCSD)), as well as an internal one with employees (Sharma and Kearins, 2011; GCSD, 2006). Employee engagement is a success factor of RBP adoption as it creates support throughout the organization, and needs to be emphasized by employee training, communication and reporting on the importance of RBP, as well as what effects it has on the community and the firm (Bolton et al., 2011; Cramer et al., 2010). This also depends on an integration of RBP culture and action in corporate development processes at all levels, above all via horizontal integration across departments (Kleine and von Hauff, 2009).

To sum up, operating in BOPs brings about additional concerns on effective RBP adoption. It depends on the firm's management perspective and internationalization strategy on which degree to adapt RBP; yet, successful international RBP adoption depends on context-specific adaptation that implies access to local knowledge, in order to create sustainable international business with mutual benefits. This access can be gained through different kinds of collaboration.



## RESEARCH METHODOLOGY

Given the fact that realities such as the understanding of RBP and ethics are quite subjective issues, a qualitative methodology was chosen for the empirical part of this research. The case study method is appropriate in this sense as it allows the researchers to get an in-depth view of organizational decision-making processes (Yin, 2009). For this purpose, a variety of data sources were combined to provide a clearer understanding of the chosen firm's international RBP behavior (also known as "triangulation" (Denzin, 1970)). Two different, but complementing data collection techniques were adopted: In the first place, a semi-structured interview was conducted based on interview guidelines we created through the literature review, to generate more details and collect testimonies of an internal key person responsible for RBP adoption and corporate sustainability. We assured the interviewee makes strategic RBP decisions on a daily and international basis and has a mature experience in the international RBP adoption process, thus enabling us to get more detailed insights into a number of RBP and their development within the firm. To guarantee data reliability, the interview statements were triangulated with publicly available as well as internal documents (such as sustainability and annual reports, as well as corporate presentations and information published on the firm's websites) and external stakeholder perspectives (through newspaper articles, as well as websites and documents of NGOs, IOs and networks the firm is collaborating with). The data was collected from December 2013 - May 2014 and the company selected based on (1) its level of RBP engagement, in order to cover a wider spectrum of RBP adoption, (2) its experience regarding BOPs (operating in at least three BOPs) to make sure it has RBP adoption experience in diverse BOP contexts, and (3) its headquarter in the developed world, in order to ensure a greater difference between domestic and BOP culture. After gathering data from different sources, it was prepared for content analysis including full reading of the transcribed information, coding (creating categories and linked sub-categories and topic descriptions) and interpretation of facts.

## CASE-STUDY: SUSTAINABLE INTERNATIONAL BUSINESS AT THE FABER-CASTELL GROUP

---The following data has been obtained through an extensive combination of internal and external sources, described in the section above. The information received thanks to the personal interview with Mr. Braun, Head of Corporate Quality and Sustainability at the Faber-Castell Group, on March, 10 2014, in Stein, Germany, will be referred to as "Braun, 2014". ---

The world's leading manufacturer of wood-cased pencils, Faber-Castell, was established in 1761 by Kasper Faber and is a family-owned company that counts on a wide range of products for drawing, writing and decorative cosmetics. Headquartered in Stein near Nuremberg, Germany, Faber-Castell is

one of the oldest industrial companies and is nowadays being managed in its 8th generation by Count Anton-Wolfgang von Faber-Castell. It was also under his management that Faber-Castell became a non-listed stock company in 2000, yet making a continuous and balanced investment in its economic, environmental and social responsibility domains (Braun, 2014).

Certainly, the choice for including the Faber-Castell Group in this research project has to do with its continuous search for sustainable development through diverse RBP forms and the way they are put into practice. Yet, another reason for this choice has to do with the company's strong international presence and profound experience in BOPs, thus being an expert in cross-cultural RBP issues. Once having internationalized its operations via FDI, the Faber-Castell Group is nowadays operating 14 production sites in nine countries (Austria, Brazil, China, Colombia, Germany, India, Indonesia, Malaysia and Peru) and is marketing its products through 25 commercial subsidiaries, thus being represented in 120 different countries across the globe and counting on about 7.500 employees worldwide (idem.).

## DISCUSSION

Even being a stock company, the Faber-Castell Group is able to demonstrate that it can just as well think and act in sustainable manners by innovatively combining shareholder and stakeholder theorists' lines of thinking. This is being realized through a "triple bottom line" thinking which leads to true corporate sustainability (Van Marrewijk, 2003). The connection of these three domains is integrated into Faber-Castell's corporate culture, policy ("10 Guiding Principles") and core values ("Brand Essentials") that have been centrally defined by the firm's headquarter (HQ) and implemented in the firm's worldwide operations through an integrated management system, called FABIQUS, for standardized processes in quality, environmental and social issues. Here, a continuous improvement is achieved through PDCA (Plan, Do, Check, Act) cycles, leading to better efficiency, globally consistent quality and more transparency (through a reporting system based on the GRI).

Moreover, when it comes to the question of which ethical values and RBP understanding to apply in BOPs, Faber-Castell decided to opt for a mix of RBP Universalism and Relativism. This has also to do with the Firm's geocentric management view and transnational strategy by promoting the collaboration of HQ and local management teams to establish globally integrated standards and permit certain local responsiveness: "(...) a certain basic framework of standards is needed, but you do also need to adapt to local circumstances in order to be successful with your international RBP strategy" (Braun, 2014). According to Bartlett and Ghoshal (2002), it is exactly this firm mentality of creating a mix of global integration and local responsiveness that is needed due to the increasing complexity of the international business environment. Actually, a great number of authors (Halme and Laurila, 2009;

Lindgreen et al., 2009; Jamali and Mirshak, 2007) confirm this idea by stating that contextual differences influence RBP needs and cause a demand for diverse responses, being local managers with local knowledge of appropriate RBP fundamental (Arthaud-Day, 2005), also for Faber-Castell: "(...) it is important to maintain a dialogue with subsidiaries and suppliers and to be sensitive to regional differences. (...) We pursue a decentralized organization and appreciate management teams consisting of locals that are strongly involved in each region. (...) Considering the subject of wage calculation, for instance, we decided to implement "decent wages" in our worldwide operations. As the comprehension of what is decent is country-specific, we decided to discuss the local understanding of decent wages with the local labor unions and managers. (...) Then, you also need to pay attention to regional differences in terms of not only paying salaries in money. In Indonesia, for instance, we have about 30 additional agreements such as washing laundry, medical assistance, child care programs, etc. that we provide to our employees. These are all issues that require strong local knowledge we don't have here at the Faber-Castell headquarter" (Braun, 2014). Other ways of obtaining such context-specific knowledge include contacts such as to local governments or the UN and RBP collaboration with NGOs, as well as suggestions of local employees that have direct connections to local communities. Furthermore, cross- sector dialogue networks, such as in discussion groups of the World Wide Fund for Nature (WWF) or the Biodiversity for Good Company Initiative are seen as fundamental to share RBP ideas and experiences in different BOPs. Together with the support of the central sustainability department in Germany, viable and meaningful projects that are in line with the firm's principles and goals are then selected and executed (Braun, 2014).

A specific example of globally integrated standards is the Faber-Castell Social Charta that was signed in 2000 with the trade union IG Metall (a strict code of conduct on social criteria that is based on the employment and working conditions of the ILO), as well as the principles of the UN Global Compact (which Faber-Castell joint as the first firm of its sector in 2003), for example. These standards are monitored by a regular three-level audit control (first, through internal checklists by each site, second by internal auditors from the HQ and third, by a monitoring committee consisting of external representatives of the international trade union BWI and IG Metall, internal management representatives, as well as work councils and local labor unions (idem.)). They are seen as the firm's minimum standards that need to be respected on a worldwide basis, with no cultural or legal variation, even if local skepticism may arise (such as about labor unions that are quite unusual in Peru or the demand for collection pans, safety apparel that is unusual in most parts of Asia (Braun, 2014)). Nevertheless, in order to solve this skepticism and explain the benefits of these standards in each region, Faber-Castell works closely with the international trade union and its local agents that negotiate with governments and help the firm to correctly introduce the standards in each context (idem.). And

even more, the fact that the compliance of these standards is monitored by the local and the international labor unions and management teams demonstrates a strong degree of universal and local considerations.

Besides, the three RBP forms discussed earlier (Philanthropic Behavior, Integration and Innovation), can also be observed in the case of the Faber-Castell Group. Firstly, Philanthropic Behavior through the Graf von Faber-Castell Children's Foundation, for instance, that provides financial, material and personal support aiming children's development through international projects (such as helping charities, hospitals and schools in BOPs). Another specific project is the "Programa Voluntários" in Faber-Castell's production sites in Brazil, where employees can support community projects with the aim of passing on their know-how to locals such as by raising awareness of environmental issues, while being exempted from work. Secondly, Integration by including more responsible behavior in core business operations on a daily basis, such as environmentally-friendly and certified production processes, packaging and products, using renewable energy sources in most production sites, using wood from own sustainable forestry in Brazil and Colombia, environment-friendly water-based paint; modern waste water treatment systems, etc. (Braun, 2014). Internal RBP include free leisure programs for employees, as well as language, literacy or computer classes, health prevention programs and even preparation courses for university that are defined and implemented by local managers in accordance with the HQ. "This has a strong motivation effect on our employees, because it improves their quality of life which in turn results in even more dedication and loyalty to the company and helps us to avoid fluctuations" (idem.). And thirdly, a certain degree of CR Innovation is achieved by implementing strategies that alleviate specific societal problems and simultaneously create long-term benefits for the company (Halme and Laurila, 2009). This win-win behavior may even be seen through the lenses of corporate shared value (CSV) thinking, namely "policies and operating practices that enhance the competitiveness of a company while simultaneously advancing the economic and social conditions in the communities in which they operate" (Porter and Kramer, 2011, p.6). Faber-Castell's forestry projects in Brazil and Colombia can be seen as interesting examples of this CSV strategy. In its site in Prata, Brazil, for instance, 10.000 hectares of wasteland were planted with millions of pine-tree seedlings, ensuring a secure and planet-friendly supply for the firm, while simultaneously having a positive impact on the environment. And thanks to biodiversity programs together with local NGOs, the managed forests provide a new habitat for species of flora and fauna just as a by-product (Braun, 2014). It results from this that today, almost 100% of the wood used for production in Brazil come from Faber-Castell's own forests- a great international aim for the near future (idem.). Besides, the company's reforestation project in Colombia is another example of this CSV behavior by saving destroyed nature in an overgrazed region plagued by floods, poverty and droughts, providing job opportunities for local

farmers and simultaneously safeguarding the company's future raw material supply: "We have made contracts (15-20 years extensible contracts) with about 51 local farmers that cultivate and reforest land for us. In return, they receive a monthly salary, 30% of the wood revenues and of the proceeds from the sale of carbon emission credits, a bonus from the UN for projects that restrict global greenhouse effects. So with us, the farmers have a constant timber buyer which allows them a higher standard of living as well"(idem.). Yet, all these RBP are *being conducted with a healthy degree of self-interest: "We want and need to make profits- but sustainable ones. The forestry projects demonstrate that all parts are benefiting from it- the company, the environment and local communities- and that is what we understand as sustainable thinking and acting" (idem.)*. This sustainable international business strategy is created through RBP adoption and adaptation and accompanied by long-term organizational (e.g. improved reputation, competitive advantage, resource assurance), employee (e.g. increased motivation and less unethical treatment), societal and environmental benefits (e.g. reducing the firm's environmental footprint and achieving socio-economic community development) (Ganescu, 2012) that constantly need to be consolidated through employee and management trainings throughout the firm's operations and communicated to internal and external stakeholders (Braun, 2014).

## CONCLUSION, RESEARCH LIMITATIONS AND INPUTS FOR FUTURE RESEARCH

In conclusion, it can be argued that the Faber-Castell Group is quite an interesting case to study when investigating RBP implementation during the firm's internationalization process to BOPs. The case study demonstrates that the definition and implementation of RBP and sustainable management practices can only be carried out by relying on strong cross-sector collaboration networks and dialogue with international/local organizations, NGOs and local management teams that pursue a profound knowledge of what is needed and understood as responsible, decent and ethical behavior in each context. Faber-Castell adopts diverse RBP forms in BOPs, combining global RBP integration and local RBP responsiveness and successful RBP adoption is the result of this behavior. The main limitation of this research is its narrow scope in terms of having analyzed one specific case only. Future research in the field of cross-cultural RBP adoption and sustainable management could therefore include a wider scope of firms. However, it contributes to the existing literature on RBP in BOPs by integrating RBP, FDI issues and international business ethics, demonstrating how corporate sustainability can be operationalized, and has practical implications as it may serve as an example for managers developing RBP in BOPs.

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## HODRIK – PRESCOTT FILTERING AND ECONOMICS CYCLES SYNCHRONIZATION IN BRICS COUNTRIES

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### ABSTRACT

The global economy and its structure have been changing constantly throughout the last decade due to new developing economies growing in size and joining together. As a result, attitudes toward international cooperation and management are changing as well. This article aims to define the extent of interrelatedness between the economies of the BRICS countries, as well as to understand how synchronized their business cycles are and whether or not the BRICS affiliation is having additional effects from its cooperation.

For this paper, we studied BRICS countries' GDP in constant prices for the period from 1980 to 2013, including the periods of world economic crises, in order to confirm or refute the "decoupling hypothesis" being in effect in the developing countries in the BRICS economic union. The data was examined as a time series and researched using the Hodrik – Prescott filtering technique and spectral analysis. Using the Hodrik – Prescott filtering technique, we have shown that the output gaps of the BRICS countries are not all of the same variety, and there are various different natures of production gaps in effect. Spectral analysis has shown that any synchronization among the economic cycles is insignificant. Taken together, our empirical analysis explicitly indicates that it is too early to begin speaking of corroborating the effects of the "decoupling hypothesis" at this point.

**Keywords:** *Globalization, BRICS, Hodrik – Prescott filtering, Economics cycle, Decoupling hypothesis*



## INTRODUCTION

Global trade and integration is one of the main forces driving the growth of the global economy and raising its efficiency. One of the basic indicators of the effective performance of economic unions and international trade stimulation is the presence of synchronization among the economic cycles of the countries involved in such unions (Erdorf and Heinrichs, 2011; Frankel and Rose, 1998; Imbs, 2004; Papageorgiou *et al.*, 2010).

The BRICS countries, which are related to developing markets, were chosen as the subject of our research. The economies of developing countries have grown substantially over the past decade, and they have begun to play a more significant role in the global economy (Kose *et al.*, 2008). As a result, the “decoupling hypothesis” is starting to be discussed more and more often. (Kose *et al.*, 2008; Felices and Wieladek, 2012; Kawai and Petri, 2014; Yeyati and Williams, 2012)

It must be noted that the 2009 crisis brought several changes in the way this issue is discussed. Before the crisis, most of the literature spoke about supporting the decoupling hypothesis (Gilenko and Fedorova, 2014; Dooley and Hutchison, 2009). Since the crisis, a great deal of research has appeared which observes a decrease or total disappearance of signs of this effect in the meantime (Dimitriou *et al.*, 2013; Wälti, 2012).

For scientists, the most pressing topic is still globalization, and it is here that professional opinions differ, as they always have. Some work notes the presence of “spillover effects” resulting from developing countries joining these kinds of unions (Das, 2010; Dooley and Hutchison, 2009), while other researchers are expressing apprehension as to the supposed positive effects of such unions (Tsheola, 2002).

In this study, we aim to research the output gaps of BRICS countries above and below their projections, and to use spectral analysis to determine the extent to which economic cycles are synchronized. A similar approach has earlier been used in regard to European Union countries in Papageorgiou *et al.*, 2010; Frankel and Rose, 98; etc.

In the second part of this article, we used a Hodrik – Prescott filtering technique to study output gaps. This technique allowed us to discover positive and negative gaps of output in the BRICS countries. We went on to use spectral analysis to study the extent of synchronization of economic cycles. This spectral analysis was carried out based on time series of the BRICS countries’ GDP in constant price.

The third section provides and discusses the statistical results of the research. The fourth section analyzes the results and the contradictions which arose, and makes an attempt to explain them.

## METHODS

### *Decoupling hypothesis*

Before the 2009 crisis, it was possible to observe various symptoms of developing countries' economic cycles becoming disconnected from those of developed countries (decoupling hypothesis). However, today, the situation has changed (Chkili and Nguyen, 2014). Countries with developed economies have gradually become stronger since the 2009 crisis. The USA and the European Union countries are gradually ending their policy of collective mitigation to stimulate their own productive forces, resulting in economic growth. While this is going on, developing countries are running into the problem of stagnant economic growth and the necessity of adapting to being in the "decrease" phase of the economic cycle. As a result, we are witnessing an outflow of capital and devaluation of national currency in developing markets, the markets which BRICS countries are connected with. In these conditions, it is doubtful that we will find evidence in support of the decoupling hypothesis.

Therefore, in order to eliminate the influence of financial markets, inflation, and currency exchange rates on the economic cycle, we chose to use GDP in constant price as the subject of empirical analysis in our research. Macroeconomic variables (like inflation) are also in part based on the economic cycle. This is the most traditional approach, and we intentionally did not scrutinize a large set of interrelated macroeconomic variables.

### *Hodrick – Prescott filtering*

Hodrick – Prescott filtering is one of the most popular ways to expand a time series of economic data into a trend and a cycle. This expansion is crucial for us to express the output gap, the difference between the actual and predicted GDP. The existence of an output gap indicates that the economy is functioning at an inefficient level, using its resources either too much or not enough.

By "trend" we mean a certain steady, systematic change over the course of a long period. However, no matter how large the series, one can never be certain that the trend is not just part of a slow oscillation. Having set a trend apart from seasonal oscillating changes, series depict a more or less regular fluctuation. Seasonal effects are easiest to discover, set apart, and study. Here, changes are occurring which are applied to the system by some cyclical mechanism external in its relationship to the basic mechanisms which define the system's behavior.

When determining the trend, we understand that any movement observed over the course of a long enough time will appear to be smoothed-out. This means that, at least locally, the component corresponding to the trend can be expressed by a polynomial of time  $t$ .

So, in our case, GDP is expanded into a trend and deviation from that trend (Hodrick and Prescott, 1997; Tsyplov, 2011):

$$y_t = y_t^g + y_t^c, \quad (1)$$

where  $y_t^g$  is a trend or structural component of the time series and

$y_t^c$  is the cyclical component of the time series.

To get a smoothed-out series, we apply conditions which minimize the cyclical component's deviation:

$$\sum_{t=0}^{\infty} (y_t^c)^2 + \lambda \sum_{t=0}^{\infty} [(y_{t+1}^g - y_t^g) - (y_t^g - y_{t-1}^g)]^2 \rightarrow \min \quad (2)$$

where  $\lambda$  is a Lagrange multiplier. For annual data,  $\lambda = 100$ .

Then, after isolating the trend, we inspected the rest of the series using spectral methods of analysis.

#### *Spectral analysis*

Next, after isolating the trend, we inspect the rest of the series using spectral methods of analysis (Kendall and Stuart, 1966).

We assume that, for any pair of values, there exists an autocorrelation:

$$\rho_j = \frac{\text{cov}(u_t, u_{t-j})}{\sigma^2}, \quad (3)$$

where  $\rho_j$  is the correlation between members of the time series after filtering by  $j$ ,

$\text{cov}(u_t, u_{t-j})$  is the covariance between members of the time series after filtering by  $j$ ,  $\sigma^2$  is the dispersion of the rest of the time series.

The total sum of coefficients  $\rho_0, \rho_1, \rho_2, \dots$  is called the correlogram of the series. By determining the correlation of the rest of the series in stages, without components of the basic trend, we can construct the correlogram, which lets us graphically trace the interdependence between members of the time series.

Then, when studying the different kinds of periodic processes (meaning processes which repeat over a defined period of time, including economic processes), the best way is to expand periodic functions that describe these processes in a trigonometric series. The simplest periodic functions are the trigonometric functions  $\sin x$  and  $\cos x$ . The period  $T$  of these functions is  $2\pi$ .

The simplest periodic process is a simple harmonic oscillation described by the function:

$$y = A * \sin (at + \varphi_0) \quad (4)$$

$$t \geq 0 \quad (5)$$

where  $A$  is the amplitude of the oscillation,

$\omega$  is the frequency,

$\varphi_0$  is the phase offset.

This kind of function (and its graph) is called a simple harmonic. The fundamental period of the function is  $T = \frac{2\pi}{\omega}$ , which means that one full oscillation occurs in the span of time  $\frac{2\pi}{\omega}$ . The denominator  $\omega$  shows how many oscillations will occur within the time unit  $2\pi$ .

Complex harmonic oscillation, which occurs as a result of applying a finite (or infinite) number of simple harmonics, is also described by the functions  $\sin x$  and  $\cos x$ . This way, a constant periodic function can be expressed with this system of formulas (6), (7), (8):

$$A = \frac{2}{\pi} \sum_{t=1}^n u_t \cos \frac{2\pi t}{\lambda}, \lambda = \frac{2\pi}{\alpha} \quad (6)$$

$$B = \frac{2}{\pi} \sum_{t=1}^n u_t \sin \frac{2\pi t}{\lambda} \quad (7)$$

$$S^2 = A^2 + B^2 = \frac{4}{n} \sigma^2 \varpi(\lambda) \quad (8)$$

where  $u_t$  is a member of the time series after removing the trend;

$\lambda$  is the wavelength;

$S^2$  is the intensity of the oscillations.

The graph of  $S^2$  is dependence on the wavelength  $\lambda$  is called a periodogram.

## RESULT

### *Hodrick – Prescott filtering*

Using Hodrick – Prescott filtering, we isolated the cyclical component from the trend for all of the BRICS countries. Our goal in doing this was, first of all, to find the existence of an output gap, and second of all, to track the dynamic of output gaps to determine the effectiveness of the economy's function. The results of the smoothed time series of the BRICS countries' GDP are presented in figure 1.

From the figure, it is clear that output gaps in the BRICS countries have fundamentally different characteristics. For Brazil and South Africa, constant stochastic oscillations around the projected value of the GDP are normal. In other words, the output gap is sometimes positive and sometimes negative. This means that the economies of these particular two BRICS countries sometimes function with excessive, sometimes with deficient use of resources.

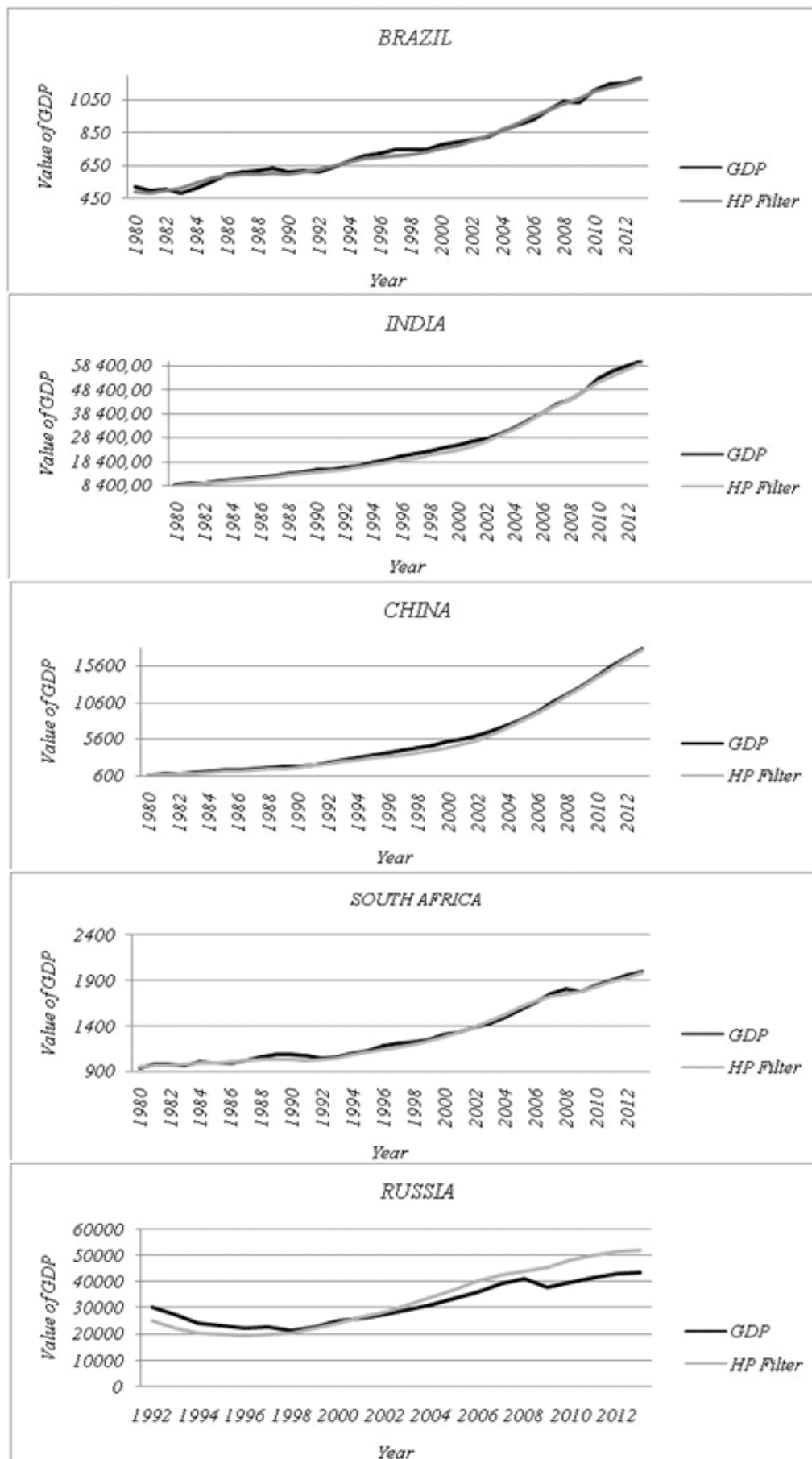


Figure 1. HODRICK – PRESCOTT FILTERING OF THE TIME SERIES OF BRICS COUNTRIES' GDP

India and China are characterized by a period of economic growth with a consistently positive output gap in the period from 1992 to 2005. This means that the economies of these two countries have used their resources too intensively and they are now encountering stagnant economic growth, for this reason among others. A similar phenomenon could be seen in Japan's economy during the 1970s and 1980s, when a period of very fast economic growth was replaced by the so-called "lost decade", a period of marked moderation and stop to economic growth. Excessively intense economic growth can not last forever. Our empirical results now tell us that the economies of India and China are now being threatened by another "lost decade". However, it must be remembered that these are developing countries, not developed countries. Stable markets have not been established in them, and a "lost decade" may have drastic effects on their economies.

In Russia, the situation is more troubled. Russia's output gap from 2001 on has been steadily negative, meaning that its economy is not working efficiently, not using its resources to a sufficient degree, and the global financial crisis of 2009 has only heightened this weakness. This shows that Russia has not finished dealing with the fallout from the 2009 crisis, and it won't be easy to move on. Proof of this is the complete lack of any tendency toward reducing the negative output gap.

Therefore, we see that the output gap dynamics of BRICS countries are various, and certain coincidences can be seen only between India and China, or Brazil and South Africa. This means that we can not corroborate the decoupling hypothesis or speak about additional economic effects of bringing countries together into the BRICS union.

#### *Spectral analysis*

Next, after eliminating the trend, we did additional research into the rest of the time series. Correlograms of the rest of the time series of BRICS countries' GDP are depicted in figure 2.

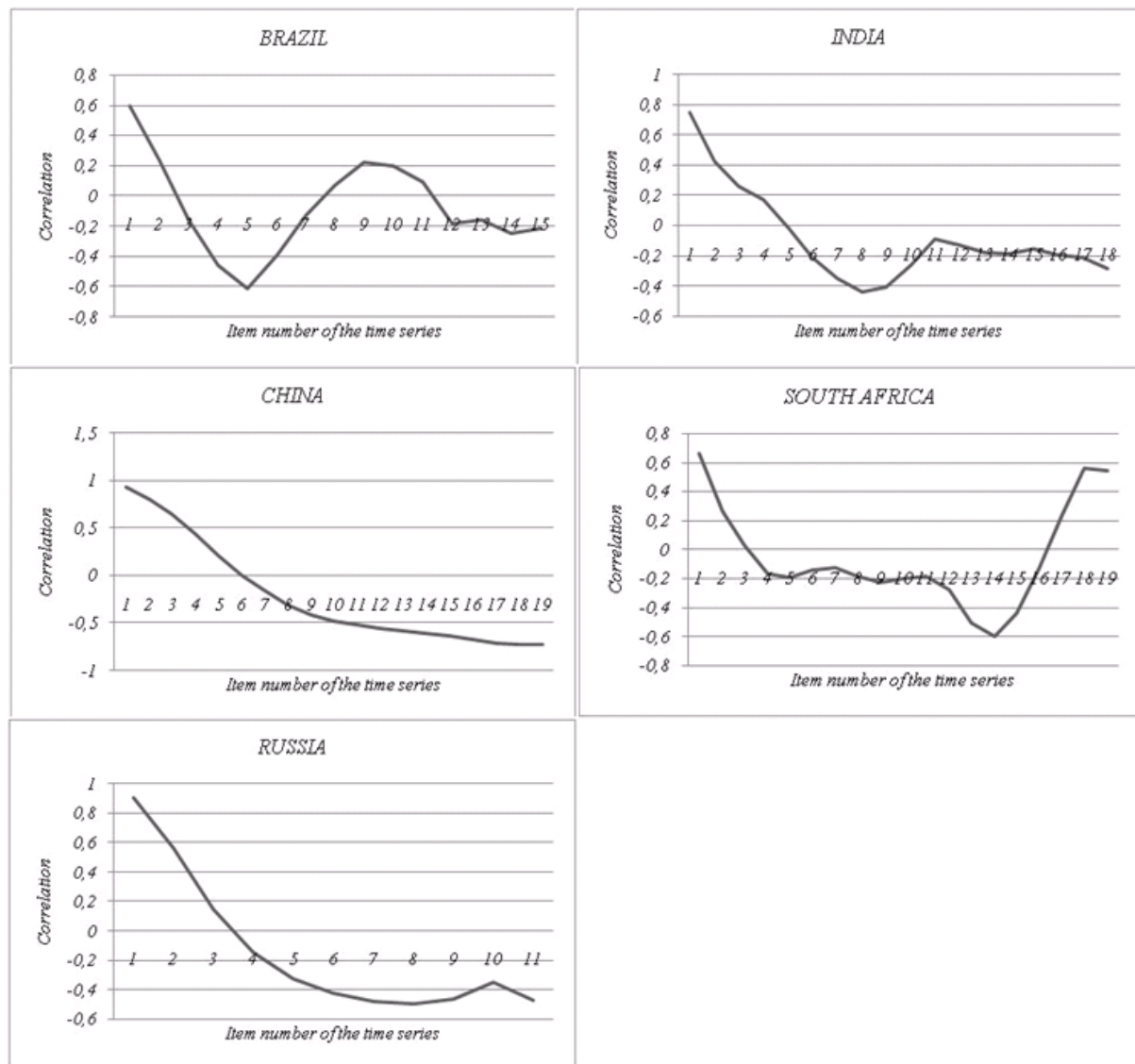


Figure 2. CORRELOGRAMS OF THE REMAINING TIME SERIES OF BRICS COUNTRIES' GDP

The greatest dependence among the members of these series appear to be: for Brazil, members 5, 9, 10; for South Africa, members 13 and 14; for India, 8 and 9; for Russia and China, the chart appears flat. So, the graphs have different shapes and different natures, and there is not much correlation between them. As a result, the most intense oscillation in these remaining GDP time series will most likely be in those years with members of the time series with the most correlation. To confirm this, we have shown periodograms of these time series of BRICS countries' GDP in figure 3.

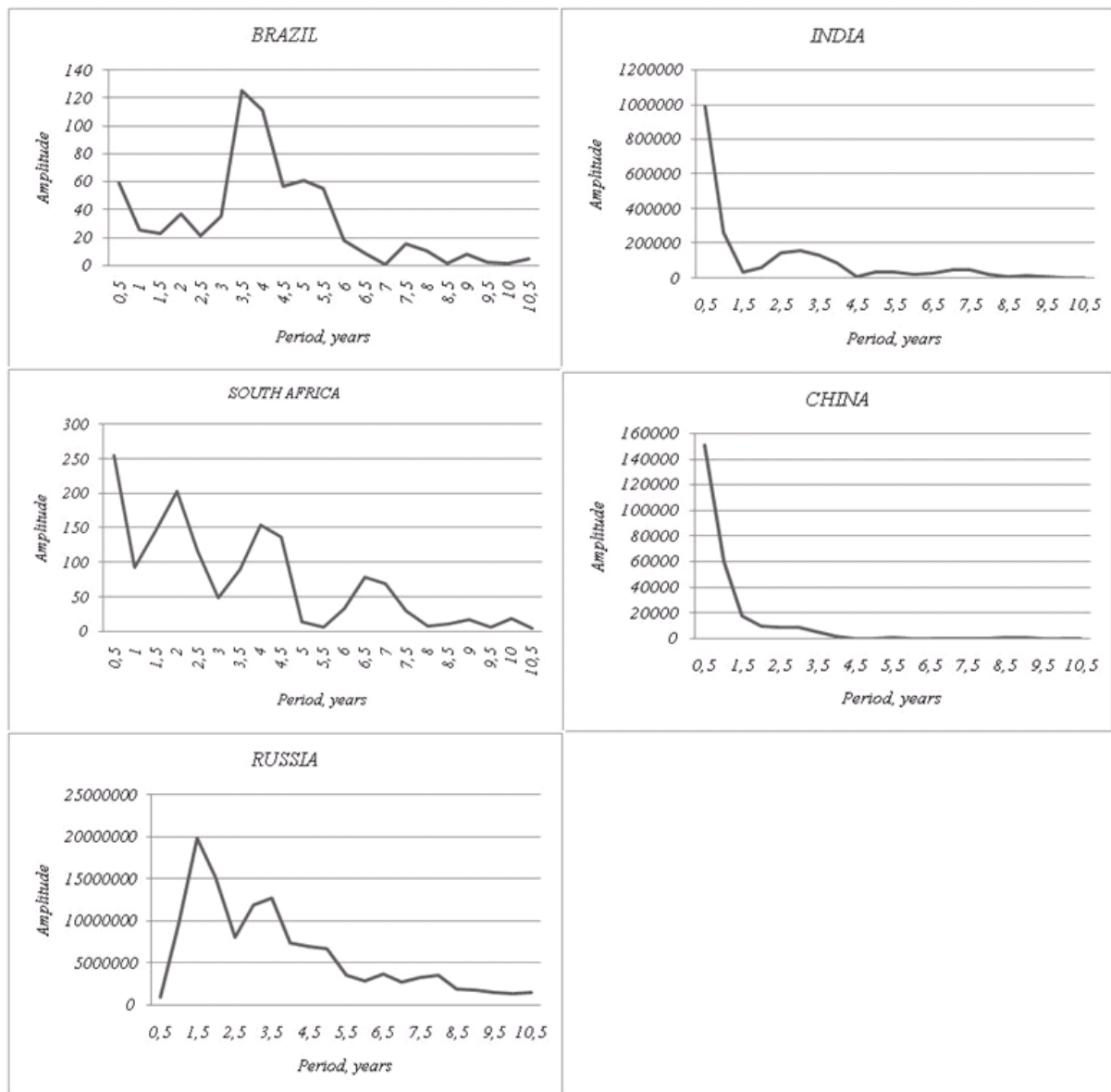


Figure 3. PERIODOGRAMS OF THE TREND-LESS TIME SERIES OF BRICS COUNTRIES' GDP

From the periodograms, we can see that, in South Africa, oscillation around the base trend occurs at 2-year intervals. In Brazil: 3 years. In Russia: 1.5 to 2 years. This correlates to oscillations in economic activity, which are connected with capital markets. India and China again confirm the conclusions which we made in the previous section.

On the whole, the results show that synchronization in the BRICS countries' economic cycles is minimal, and we can not find evidence of the decoupling hypothesis.



## DISCUSSION

Our research has show that the BRICS countries have different output gap dynamics, which prevents us from confirming any significant level of synchronization in the economic cycles of the BRICS countries and, as a result, prevents us from supporting the decoupling hypothesis.

Despite this, our research goes well with the existing paradigm of research on this topic. Before the financial crisis of 2009, there was an environment of fast growth of developing countries' economies, especially Asian ones (Kose *et al.*, 2008; Felices and Wieladek, 2012; Kawai and Petri, 2014). Most researchers found evidence of the decoupling hypothesis and spillover effects in their research (Das, 2010; Dooley and Hutchison, 2009 Gilenko and Fedorova, 2014). However, the global crisis of 2009 changed the trend (Yeyati and Williams, 2012) and research has begun to show more and more evidence of reduction in the decoupling hypothesis and spillover effects since the 2009 crisis.

Our research also indirectly supports the results of those other researchers who have noted a substantial decrease in the decoupling effect after the 2009 crisis (Dimitriou et al, 2013; Wälti, 2012).

In addition, the research shows that, in order to improve the efficiency of the economic union, the BRICS countries must first solve their internal structural problems.

## CONCLUSION

We have done research on the level of synchronization in the economic cycles of the BRICS countries. In doing so, we used two methods: Hodrick – Prescott filtering and spectral analysis. By using Hodrick – Prescott filtering, we discovered the varied nature of the output gap dynamics of BRICS countries, which allowed us to conclude that the economic cycles are not sufficiently synchronized and that the decoupling hypothesis can not be supported at this time. Spectral analysis yielded similar results.

In the future, we plan to examine the BRICS countries' cooperation using other macroeconomic variables.

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## INTANGIBLE ASSETS AND FINANCIAL PERFORMANCE OF RUSSIAN COMPANIES LISTED IN MOSCOW STOCK EXCHANGE

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### ABSTRACT

One of the central problems of the global economy is the issue of attracting investment into different sectors of a national economy. The presence of intellectual capital among an enterprise's assets is a substantial factor in attracting investment. This article researches how the size of an enterprise's total stock revenue depends on intellectual capital's share in the structure of the company's assets. The model was based on data collected from the accounts of 41 public Russian companies, all of them part of the Moscow exchange. In this study, we operated on the assumption that the presence of intellectual capital would have a positive effect on the financial results of Russian companies; however, in the early stages of our research, we could not find a linear relationship between intellectual capital and financial results. Only deeper and more detailed analysis, based on non-linear regression models, led us to evidence supporting the positive correlation.

**Keywords:** *investment, foreign direct investment, intellectual capital, intangible assets, total comprehensive income.*

### INTRODUCTION

An enterprise is an open system and, to better understand the factors of growth and development, any changes must be monitored by managing entities. Financial statement analysis can say a lot about an enterprise's activities (Kaplan, and Norton, 1992). An enterprise's financial analysis, lending an understanding of general economic tendencies, permits evaluation of such macroeconomic problems as: low level of international investment, capital withdrawal from their country, minimal levels of innovation, lack of competition, and stagnation of small businesses. In other words, it helps to evaluate everything intrinsic to the Russian business model of today.

In the global economy, one of business's key drivers for success is innovation, along with intellectual capital. (Harlow 2013, Tan *et al.*, 2007, Amin *et al.*, 2014). Measuring innovation processes (Boly *et al.*, 2014) and value creation through intellectual capital (Shakina and Barajas, 2014) are beginning to be

discussed more and more in research literature, as well as evaluating the effects of intellectual capital on a company's activity. (Kim, S.H. and Taylor, D., 2014)

Intellectual capital's effect on financial performance of companies is still an open question for developing countries. This is why most researchers are trying to find and evaluate the relationship between these factors (Tan *et al.*, 2007, Amin *et al.*, 2014).

In Russia, an enterprise's bookkeeping is characterized by the near impossibility of exposing the amount of intangible assets, intellectual capital, and innovation, even in the most open and public companies. They are reflected in the consolidated accounts under "non-current asset", "goodwill", and "participation in joint-stock capital". This is why, in our calculations, we used the value "non-current asset", which in some instances included the value "goodwill". In this work, we also tried to find a relationship between the value of intangible assets and the value of total revenue in 41 enterprises. The enterprises were selected from all companies listed in the Moscow exchange.

This article presents the results of an attempt to find an exponential relationship between values. Our analysis has shown that there is no logarithmic relationship between the analyzed data; a further analysis was carried out and a sinusoidal relationship was exhibited.

## METHODS

### *Data and accounting of intellectual capital in Russia*

In our research for analyzing the effects of intellectual capital on financial performance, we used annual consolidated financial account data of Russian companies from 2010 to 2012. We examined the information of 41 open public companies listed in the Moscow exchange, and its constituents the MICEX Index and RTS Index, which regularly publish their financial accounts by International Financial Reporting Standards or US GAAP.

International Financial Reporting Standards (IAS 38) allows advertising expenses, training, research and development expenses to be considered intangible assets. The goal of research and development is to acquire new knowledge. To be considered an asset (including intangible assets), the International Financial Reporting Standards require the following criteria: identifiability and oversight. An intangible asset must also be nonmonetary, without physical form, and capable of yielding economical benefits in the future.

International Financial Reporting Standards allow the following to be included among intangible assets: lists of clients, market knowledge, technical knowledge, uncompleted R&D, and other similar assets. This substantially expands our understanding of intangible assets. According to Rule GN8.12 of European Valuation Standards, regardless of whether they are reflected in the balance or not, intangible assets can be divided into two categories:

- goodwill (unidentifiable intangible assets),
- identifiable intangible assets.

It is recommended that “goodwill” be evaluated as a whole number, by means of converting surplus income into capital. Surplus income is defined as “rent goodwill” or economic gains. This means that “goodwill” is equated with capitalized economic gains.

In this way, the total comprehensive income should theoretically be connected with the worth of an enterprise’s intangible assets in a directly proportional manner.

In the accounts of several companies examined, the “goodwill” index is expressed within the index “intangible assets”, and as a result, in our calculus we used the sum of intangible assets and goodwill if they were expressed separately in the accounts. This was done so that the data for analysis would take an analogous appearance. In this way, we used the coefficient  $\gamma$ , which shows what portion of the enterprise’s overall assets is taken up by intangible assets and goodwill. It is important that the enterprises can be compared using this coefficient.

The index — allows us to evaluate the profitability of an enterprise’s actions and can also be compared with indexes of other companies.

#### *Description of sample*

In our research, we examined the financial accounts of Russian companies over the period from 2010 to 2012. Russian companies have only recently begun the practice of indicating intangible assets in their accounts. We found ample evidence that absolutely no intangible assets were accounted for in Russian companies’ bookkeeping from 2010 to 2011. For this reason, we were forced to examine only data from 2012 in our model. Obviously, this limited the results of our research somewhat.

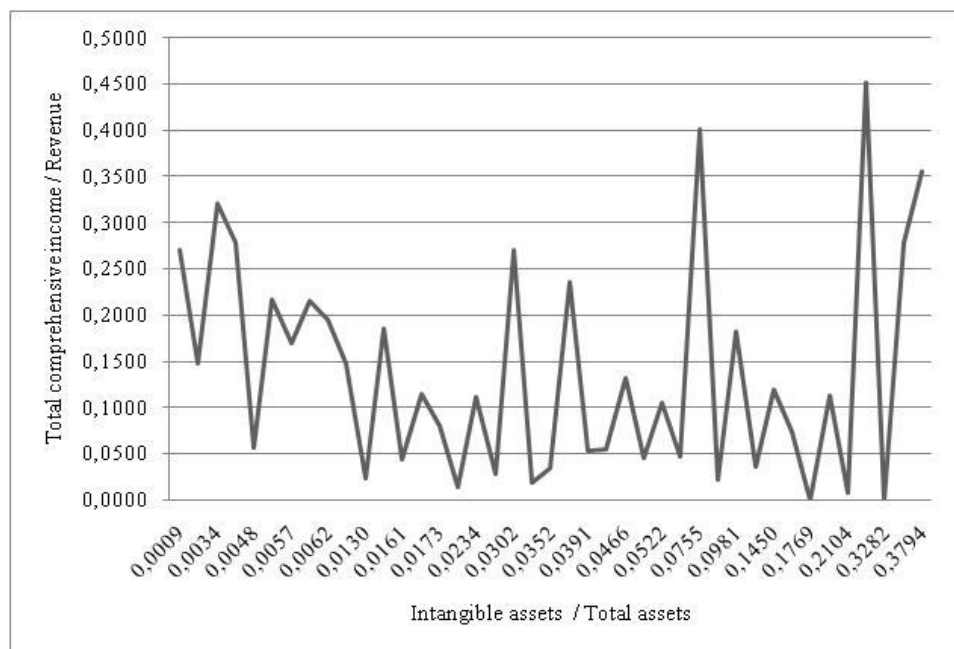
The second limiting factor was that we have been examining companies which are included on the Moscow Stock Exchange, but which belong to different fields. It must be noted that all publicly-traded companies on the Moscow Stock Exchange are “flagships” of the Russian economy, meaning that they are the leaders of their fields in terms of assets, capitalization, and profit. We did not examine small and middle-sized businesses due to these enterprises’ data being inaccessible. The general distribution of our data grouped by economic sector is presented in table 1.

Field	Number of enterprises in sample
Mechanical Engineering	2
Energy Development	5
Transport	2
Metallurgy	10
Construction and Construction Materials	3
Consumer Sector	3
Telecommunication	3
Chemicals and Petrochemicals	2
Oil, Gas, and Coal	7
Financial Sector	4

Table 1. *DISTRIBUTION OF DATA BY ECONOMIC SECTOR**Regression analysis*

In this way, we acquired sets of comparable data from 41 companies. We ran a regression analysis to discover the link.

The independent variable (X) was the portion of intangible assets in total assets, and the dependent variable (Y) was the portion of total comprehensive income for the year in revenue. A graphic depiction of the relationship is presented in figure 1. The relationship between the X and Y variables is portrayed as points on the coordinate plane (X,Y) and form an empirical linear regression Y of X.

Figure 1. *REGRESSION MODEL SHOWING THE DEPENDENT RELATIONSHIP BETWEEN X AND Y*

Basic assumptions:

1. Let the following formula be true

$$Y_t = a + bX_t + \varepsilon_t, \quad (1)$$

where  $t = \overline{1.41}$  is the number of factors in the sample being examined

$X_t$  is the deterministic variable

$Y_t$  is the dependent variable

$a$  is a constant

$b$  is the slope of the line

$\varepsilon_t$  is the deviation

2.  $E\varepsilon_t = 0$ , the value of error  $\varepsilon_t$  is mathematically expected to equal 0;

3. Error  $\varepsilon_t$  has a normal distribution when  $t = \overline{1.41}$

We can calculate the values of regression of  $a$  and  $b$  using the method of least squared, as in formulas 2 and 3.

$$b = \frac{n \sum X_t Y_t - \sum X_t \sum Y_t}{n \sum X_t^2 - (\sum X_t)^2}, \quad (2)$$

$$a = \frac{1}{n} \sum Y_t - \frac{1}{n} \sum X_t b \quad (3)$$

We tested our hypothesis  $H_0: b - b_0 = 0$  using the standard criteria of linear regression: Student's t-test and F-test.

As is obvious from figure 1, a linear approximation is unlikely to give good results. We decided instead to test other kinds of dependency, specifically logarithmic and sinusoidal. We incorporated these types of relationship into a linear one, using formulas 4, 5, and 6.

$$Y = AX^b \quad (4)$$

By making a logarithm of both sides of the equation, we can bring this relationship into a linear form:

$$\ln Y = \ln A + b \ln X \quad (5)$$

$$Y = \sin \varphi_0 + \beta \sin X \quad (6)$$

## RESULTS

An analysis of the correlation helps to discover the trend and level of interrelatedness between two variables. The results of regression analysis by linear, logarithmic, and sine models are depicted in table 2.

Type of relationship	Linear	Logarithmic	Sine
Coefficient of multiple correlation R	0,025249	0,155812	0,341662
R-squared	0,000255	0,024277	0,116733
A	0,123823	0,123989	-4,49882
B	0,183656	0,183321	-0,49426
F-statistic	1,0102	0,970374	5,154271

Table 2. STATISTICS OF REGRESSION

From table 2, it is clear that the best approximation of the data occurs when using a sine-based model of dependency. However, we also see that the R-squared and F-statistic are very small. This implies



that we probably can not describe any kind of relationship between the data.

Since we received results which correspond poorly with the existing research (Lev et. al., 2009; Cohen and Vlismas, 2013), we tried to partially remove the limitations caused by examining enterprises from different fields by building a linear regression model specifically for the metallurgy sector of the Moscow Stock Exchange. We chose metallurgy because it is connected to the largest number of enterprises on the Moscow Stock Exchange. The results of this model are presented in Table 3.

Parameter	Value
Coefficient of multiple correlation R	0,62283
R-squared	0,38792
A	0,14325
B	-0,52411
F-statistic	5,07024
Instances observed	10

Table 3. *RESULTS OF LINEAR REGRESSION ON THE METALLURGY SECTOR*

Although the R-squared value in this model seems much more ideal, the relationship between intangible assets and financial performance turned out to be opposite.

From an economical point of view, these results help to understand that innovation in Russian enterprises carries an administrative character, rather than a market-based character. At this time, an enterprise's innovative activity and its intangible assets, including intellectual capital, do not have an effect on its generated income or its ability to attract investment in stocks. These results are not standard, and they are related to the unique features of Russia, as most research on the topic does succeed in finding a connection between intellectual capital and public corporations' revenue. Another factor which has a substantial effect on these results is the lack of a developed institution to protect intellectual property in Russia. In practice, most companies do not need to commercialize the results of their innovative activities. This leads to intangible assets being absent from the consolidated accounts, and this information is instead incorporated into "investment in associates and joint ventures".

## DISCUSSION

The results of the research demonstrated no connection between Russian enterprises' intellectual capital and their financial performance and ability to attract investment. This result is unexpected, given the background of the Russian government's attempts to stimulate innovation and raise direct investment into Russia's economy. In addition, most researchers recognize a positive connection between intellectual capital and the success of enterprise activity in other countries in the global economy (Amin *et al.*, 2014, Manolopoulou and Tzelepis, 2014). It is important to note that up to 70%

of successful innovation in the world is achieved through the lens of the Demand-pull hypothesis (Nemet, 2009). Russia is a developing country with a significant share of raw material exports. It is possible that modern Russian enterprises have neither the experience nor the culture of innovation and asset generation in their knowledge base. This is why the market of direct investment in Russia is represented largely by companies in the raw materials sector of the economy, which has a low level of innovation and intellectual capital.

## CONCLUSION

We researched the relationship between intellectual capital and financial performance to better understand how public Russian companies attract investment. Based on data about the portion of total assets taken up by intangible assets and about the value of total comprehensive revenue for the year for, we created different models of dependency, specifically: linear, logarithmic, and sine-based. We came to the unexpected result that there is no connection between intellectual capital and finance performance in Russian enterprises. In the future, we are planning deeper research into the reasons for this connection's absence.

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## **A NEW WAY OF BUSINESS THROUGH THE EUROMEDITERRANEAN MODEL**

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### **ABSTRACT**

The transformation of the model of management is mixed because it is based on economics concepts where the viability and the success of a good operation remain the concern first but also the continuity of the richness represented by human resources. It's the reason for which we can affirm it can have a bringing together with the managerial practices of Arab countries and those of Europe like France. According to the preceding approaches on spaces of thinking, the Euro-Mediterranean model can be conceived like a space of directions:

For geographical reasons, even if the limit is fuzzy: thus, East and West of the Mediterranean sea can be considered like good examples for this demonstration due to different but similar things like the way of life, the landscape.

For historical reasons: philosophical, scientific bases and policies of the occident, primacy of economic flows until the end of the 19th century.

For sociological reasons: (strictly speaking) the Mediterranean way of life and thought (role of the community, research of the humanistic proximity, impacts of futility, logic of resistance) and with the historical Mediterranean pressures (frequency of the crises, interbreeding) but also (substantial rationality, diversity, accumulation and growth) and with the European historical pressure (constitution of an unique economic area).

For economic reasons: the permanent juxtaposition of levels of different richness and growth. This constitutes a first framework of the Mediterranean new model because we also notice that we not have opposition between North and the South, West and East; they offer a real possibility of bringing together and a mutual empowerment, and not antagonism.

They offer no catch to dichotomy North/Modernity/Industry and South/Tradition/Land,

That they can only to enrich our vision and our approach economic by market.

That they make it possible to defuse the trap of the "Mediterranean values" whose contents (often fixed) cause dispute, schematics to the profit of the description of process authorizing the differences. To reason in term of process as enables us to approach management more easily as the contents of the values of th Euro-Mediterranean positioning and management.

## TRACKS FOR A METHODOLOGICAL FRAMEWORK

*The project:* what characterizes the transformation of the economic and business model; it is the extraordinary variety of situations which make its apprehension complex and consequently any difficult intervention because of the singularity of each element being treated in particular with different and unbalanced methods of approach. One could, to even say that it is also what makes its interest because each challenge to take up will be proportionally more difficult compared to traditional situation. Initially, one can thus affirm that the operators intervening in the transformation of business to be not only voluntary and courageous but that they require should moreover surmount obstacles additional and specific to each type of situation. The complexity of the business which one finds in particular at the time of the transformation of the structure grows because of the multiplication of the variables and uncertainties to be taken into account in all the situations of business. From this complexity, we can be directed while betting on a complexity distributed on human complexity on all the levels. The organization of a cell project with a head of project identified and legitimate with a clear communication resting on in-house partners and into external (Businessmen, trade unions, consultants). The interactive connection between the signal business and the base cannot set up to leave from a head project or a cell project clearly identified. We do not mobilize the staff on strategic stakes starting from the emotional reaction on the importance which represents the weight of a decision and the consequences which result from this by making brief surveys or by forcing a dominant ideology to make adhere the staff and to mobilize it on the importance questions or of survival. The role of a head of project representing the connection between the customers and the signal business constitutes the first steps of a system which implemented in the duration and which aim at ensuring stability of the method and to consolidate each individual in his role of person in charge that can emit opinions or make constructive proposals. The principal goal is to crystallize around the head of the whole project of information which can play a determining role in very decision-making by taking a real decision, while classifying and while choosing what will be the strategic major importance and what concerns the second order. It is significant to specify that the head of project endorses a considerable responsibility because of his role and the decisions which are or will be taken thereafter.

*The strategy:* the transformation of the business model is mixed because it is based on economics concepts where the viability and the success of a good operation remain the concern first but also the continuity of the richness represented by human resources. It's the reason for which we can affirm it can have a bringing together with the business practices of Arab countries and those of Europe. Each decision in the process of transformation implying the staff is the result of interactive connections intern and external through which the business policy is organized for the attack of objectives aiming

at satisfying in priority the interests of the shareholders. From this point of view, the evolution of the managerial practices centered on the policies of human stock management encounter real difficulties between the divergent interests of the shareholders in search of profitability in the short and medium term and the requirements of the professional life in the long run in particular on the fact of preserving the employment as long as possible. The results reached are thus the representation of these two types of connections which one can qualify "A feel single" insofar as the authority in the business will be exerted fully or "A double feel" insofar as this authority is lit and helped by the base. In fact, the two types of connections belong to a more complex unit including the environment by the signals of the market into external (emission) and the behavior of the in-house actors characterized by the attitudes and the reactions compared to the signals (reception). Located at the borders of the strategy of the firm, antagonisms of connections reveal various positions that is necessary to try as well as possible to combine interests of each part because of the essential principle of survival of the firm duplicated of the will of the managers to preserve the employment by developing the activity characterized mainly by the turnover. The interactive connections between the strategy of the firm and the policy of human stock management thus depend fully on the moment (time) and the place (space geographical: room, regional, national or foreign) in which they will be exerted. Thus, it is of primary importance to hold account in order not to be in permanent shift between the possibilities offered on activities, markets, outlets or quite simply of the scale economies related to the only fact it is more interesting to rationalize the costs by transferring them for example on others places of production and the requirements of profitability which are increasingly related to the human capital.

## HOW TO DEFINE A SPACE?

To speak about the Euro-Mediterranean concept is a point of identification for a space in which the subsets political, sociological, and organizational (and why not geographical, physical, climatologic...) have behaviors different from the same subsets in others spaces.

Thus, it seems possible to call upon the most recent work of geopolitics, and in particular those led by different authors in economics and management. They show a process of delocalization of the direction, fruit of acceleration of universalization and a new way of modernity, in a measure where we do not lead to a return towards the tradition. Their ways of thinking stay initially on the development of the plurality to the world level, which is declined on four axes:

- The decentralization of the modernity, which is not more European or euro-American. That is explained by the disappearance of the historical aspects (colonial world), economic or symbolic system (authority).

- The dissemination of the authority because "there is difficulty by thinking a political, social or cultural phenomenon from only one actor or from only one leader (State, religion)"; this dissemination leads to a "double pluralism: pluralism of the systems of direction and pluralism with inside of each system of direction".
- The rise of the relativism, like consequence of the preceding dynamics, but also by the philosophical dispute of universality to which we can oppose incommensurability by an increasing complexity that general dynamic vision cannot restore and by the refusal of the rejection of the egocentrism.
- The new kind of the honor of the nations, related to the end of a vision of the world in opposite blocks (fine of the cold war) allowing the primacy of the business and cultural (with the detriment of the ideology): Today it's through the market that the "virility" of the nations is expressed".

After the structural factors identified, we are interested in the contents of spaces of direction as the place where three dynamics tangle up:

- The installation of a deliberative space in which can act the public or private actors. in order to pose and solve problems calling of the common solutions to this space...
- The production of "collective" and specific preferences to this space in the world game
- The capacity to convert these preferences and these deliberations into political performances...

Thus, we will qualify this space of direction any space able to answer simultaneously the conditions of deliberation, by enunciation and performance such as we have just defined them.

Without entering in a radical criticism of the definition of the space of direction, we note that its institutional dimension leads us to analyze the contents and the impacts of regionalization only through political constructions (European Community), religions or geographical spaces. We notice as well as the Euro-Mediterranean model does not enter any of these categories, but it doesn't reject anyone. Thus, a finer investigation remains necessary.

## **THE BEGINNING OF THE EURO-MEDITERRANEAN MODEL OF BUSINESS**

According to the preceding approaches on spaces of thinking, the Euro-Mediterranean model can be conceived like a space of directions:

- For geographical reasons, even if the limit is fuzzy: thus, East and West of the Mediterranean sea can be considered like good examples for this demonstration due to different but similar things like the way of life, the landscape.

- For historical reasons: philosophical, scientific bases and policies of the occident, primacy of economic flows until the end of the 19<sup>th</sup> century.
- For sociological reasons: (strictly speaking) the Mediterranean way of life and thought (role of the community, research of the humanistic proximity, impacts of futility, logic of resistance) and with the historical Mediterranean pressures (frequency of the crises, interbreeding) but also (substantial rationality, diversity, accumulation and growth) and with the European historical pressure (constitution of an unique economic area)
- For economic reasons: the permanent juxtaposition of levels of different richness and growth: Euro (money) is a quasi-perfect example of integration of diversity, for reasons of sustainable development predicting a common future:

Europe Community constitutes the greatest world fresh water reserve; blue gold becomes one of the major stakes of the geo strategy and an Euro-Mediterranean vision is essential, less than one hour of plane separates the European Union (GNP/inhabitant highest) and Africa. In fact, geographical space materialized by the Mediterranean Sea between the "rich person" and the "others".

While remaining voluntarily in the management approach, we see that there is matter to constitute a space of direction, since if we disregard (for the moment) public / institutional dimension, we find conditions of deliberation (in particular on the level private operators), of stating and performance. To further go, to materialize this space of euro-Mediterranean direction, implies to find identity marks. We must move towards the definition of the euro-Mediterranean which rests: - on European specificities, which are compared to the United States: economic conflict political competition and incompatibility of the social models. - On approaches resting "on a kind of praise of heterogeneity? to substitute in the State of right of the "States of the rights" orchestrating diversity of the allegiances and the human memberships in order to differently treat them within companies in diversity.

The goal is to assure the accomplishment for each one individually by not forcing anybody to be detached or disavow its fasteners and while basing themselves precisely on these bonds, from the point of view where each one would be removed from the artificial yoke generated by the "homogenization".

On the capacity to identify "clean" interests, being able to involve divergences within the European Union including on what seems the Truth. Thus goes from there it of the concept of single market, considered by English as having to be most open possible on free of exterior so that it is based in an immense total market "the Mediterranean countries insist that the single market marks its identity with respect to outside, in particular by mechanisms of control". To define a space of euro-Mediterranean direction would not amount it proposing a political humanism resting on three bases:



- ontological equality in dignity, which seeks to be carried out through equality of the rights and the conditions, right conferred on each one to take part in the definition of the collective destiny like carrying out its individual destiny;
- the freedom, concretized in the individual conscience and the independence of mind, the distance kept vis-à-vis the communities of membership, the separation of the private and the public;
- the knowledge which means the dissociation of the knowledge and the ignorance, the knowledge and the capacity; the disclosure of the knowledge to all; the permission to doubt and call into question; the permanent possibility to transform the world with the risk of error; "the European universalism taken within the limits of our thinking and our knowledge, cannot completely include all philosophies European economics policies, whereas it appears more relevant for the Mediterranean nations of in relation with Mediterranean countries and further to exchange practices in management which could be very useful for everyone.

In this context the business model is designed to answer a series of questions essential to any business – who are the customers, what do they value, how that value can be delivered to the customer at an appropriate cost and how the business deploys its assets. It includes a description of the key assets, both physical and intangible such as intellectual property, governance structure and management. It consists of both a *narrative* of how the business works and the *numbers* – how it makes a profit. The concept came into vogue when the spreadsheet provided an easy way to test the financial implications of the narrative in a financial model which contained assumptions about costs, product demand, sales revenue and profit. The financial outcome of changes to the narrative, or assumptions about product demand, etc. can be tested in the spreadsheet model (Margretta 2002).

One reason for the popularity of the concept in the new economy, appears to have grown out of the need for the emerging dot com firms to have a comprehensive, but standard format, to explain to potential investors 'how they were going to make their money'. The value proposition of dot com firms typically involved an innovative service or process for attracting a customer base. The proposed business model was often radically different. Often there was no precedent, no business experience, for instance, on which to base likely demand levels.

This constitutes a first framework of the Mediterranean new model because we also notice: - that we not have opposition between North and the South, West and East; they offer a real possibility of bringing together and a mutual empowerment, and not antagonism.

They offer no catch to dichotomy North/Modernity/Industry and South/Tradition/Land,

- That they can only to enrich our vision and our approach economic by market
- That they make it possible to defuse the trap of the "Mediterranean values" whose contents (often fixed) cause dispute, schematics to the profit of the description of process authorizing the differences.

To reason in term of process as enables us to approach management more easily as the contents of the values.

We can also see the arab business model from the strong point of it : the Islamic finance. In fact, the islamic arab business has proved to be a resilient system based on the basic principles of transparency and fairness in business, for example during the financial crisis which started from the US and hit. The resilience of Islamic financial institution is due to the unique business model which will continue to be different from the conventional banking due to its nature being the asset-based approach for each dealing," Overwhelming majority of businessmen see an asset base a starting point for each and every deal making this business much secure, transparent and open for investors and bankers. We don't believe in imagination as physical presence of assets is a basic ingredient for Islamic banking as this very basis has provided strong protective layers to each and every business in this industry, The Islamic banking industry also faced numerous challenges such as harmonization of Shariah standards and strict adherence to the basic principles of this type of banking while competing with its established peers called conventional banks.

The growth pattern and acceptance of the Islamic banking has been a hallmark behind the sustained growth of the Islamic banks and the financial institutions. This trend will be a ladder for achieving excellence for the entire Islamic banking industry in years to come.

## **THEREBY, WE CAN PROPOSE THE EURO-MEDITERRANEAN BUSINESS MODEL**

Last approach of the prism: what can we do on the level business and research, by supporting us obviously on what we think and by locating us in logic of complementarities at the Anglo-Saxon model?

To create a euro-Mediterranean thought around business must lead us to a thought on diversity and complexity. This one is very present since several works were built on the same report: the difficulty of the neo-classic model dominating to account for the choices of the economic actors. This is not new in the sphere of management. A fast reference to the work it possible to recall that this we had identified several types of management that we briefly recall:

The Anglo-Saxon model with the dominance of business, competition, profit, individualism.

The Japanese model: growth, quality, integration, agreement,

The Euro-Mediterranean model: Management "in between", people, internal negotiation, diversity

This approach of diversity is found in several disciplines of management. Some examples: - "To be together, firstly it's probably to make together. It is necessary to clash with the complexity and the

construction of the future by the creativity, by the collective mobilization of the intelligence. That also means that it is imperatively necessary to rehabilitate the postulate of the specific one, of the locality and of immediately reaction, by combining them. It is necessary to support microphone-spaces of creation of the direction ".

Us plunged not only in one problems of the direction, but also in a new vision of management. The return to specific, with the room is a differentiation marked compared to the Anglo-Saxon model homogenizer.

These capacities must be like the capacity maintains a coherence of Organization between its organizational dimensions intern and external ". Even the financial managers are interested with diversity. We will also note that the transverse approaches of the managerial problems have very as a finality to better locate and better to include/understand diversities of the organizations and the actors the component (management of SME, governance, impacts of the TIC, durable development of the firms, social responsibility, quality, management of knowledge, innovation?), and this in order to better act. Taking account of:

- In the ethical plan, like paradigm interpretation legitimates evolutions;
- and on an emotional level, like horizon, desirable sign of the future ".

In fact : Euro-Mediterranean business has like field:

- the examination of the managerial practices of the companies and the men whose acts have as life or a starting territory the "areas" of the South of Europe, of the North of Africa and west of the Middle East. This geographical framework legitimates the conceptual roots of the euro-Mediterranean model but does not reduce the studies and the applications to this territory: we think that all the areas of the world are marked in their history by diversity, that all the decision makers, interested by an enrichment of the Anglo-Saxon model, must be integrated in a euro-Mediterranean approach. It is necessary to keep with esprit an opening on the Latin America, on the Chinese or Indian regional approaches. We could even think of Japan which modified its model insertion in Asia by giving up the metaphor of the flight birds (linearity, uniformity, Cartesian logic of the movement) for that of Symbiosis (diversity, harmony across the differences).
- Problems of pedagogy and research centered on specificity, diversity, the locality to have a more relevant systematic approach of the complexity of the organizations and their actors. The potential which is in front of us is huge. Thus, it seems to us that the Mediterranean approach (sea coast coastal traffic proximity) compared to Anglo-Saxon approach (ocean vastness) allows a thought on the decision-making. If we not regard the latter as step rational optimization under identified constraints, but a choice taken in a more or less reduced context of uncertainties, it seems that we can explain that:

- The reduction of uncertainty for the Anglo-Saxons, confronted with the vastness and the lack of reference mark, passes by modeling and the very formalized contract, sources of homogenizing procedures,
- The space proximity offers to Mediterranean possibility of return (logical of experimentation more accentuated than modeling) and a permanent monitoring (less contract).
- The creation of grids of analysis and the actions leaving a ethnocentric vision the world and management, and making it possible to differently solve problems of survival, of development of the men, organizations and nations where the euro-Mediterranean world legitimate by its is lived of the crises and the conflicts and also by the solutions that it brought throughout its history and which it will continue to propose. The sustainable development of the firms and the nations can be conceived and be built only on one history. The Hofstede dimensions do not directly predict any phenomena or dynamics. Applying them to make sense of what happens in the world always has to take into account other factors as well as culture - notably national wealth, history, personalities, and coincidences. There is no quick fix to understand social life after taking a dose of Hofstede. But the dimensions, when well understood, do allow to predict a little better what is likely to happen. And they become more useful as you go from the specific case to the trend, average, or expectation. For instance, knowing about culture hardly helps to predict what car you will buy - but the trend among your compatriots to buy certain types of car in the coming years can be predicted fairly well. In the case of the business Mediterranean model we can involve the differences of culture in order to gather the best way to trade and develop business whatever the differences and the length of cultures.

The Hofstede dimensions of culture are group-level constructs. Dimensions of national culture are about societies; dimensions of organizational culture about organizational units. Neither is about individual differences between members of society or organizations. Comparing survey responses between individuals does not yield similar patterns to the cross-population comparisons on which the Hofstede dimensions are based. This kind of issue is known among scholars as the distinction between levels of analysis. If we take into account the Islamic financial model we can find the basis of the system according to one item from the system :

## **RECONCILING PUBLIC AND PRIVATE PARTNERS FOR OPERATING AIMS**

According to their culture and know how, public and private partners have different expectations and aims for their own performance. Nonetheless, they are obliged to be agreed on the Essential.

Public partners are under pressure to improve the wealth both for citizens and companies by selecting areas of the most urgent needs and by helping everyone to be involved with their point of view and in action.

Private partners are looking for business with the highest profit and the lowest risk in order to be in the good agreement with shareholders in spite of many problems of employment supported mainly by public partners.

Thereby, how reconciling the two partners in keeping their aims by creating a new way of cooperation without being in arguing?

Before, we have to precise that public partners are evaluated by the vote of the electors and private partners by the vote of the shareholders. Both are periodically on the way to accept many hard conditions to survive.

Therefore, the first point and prior idea for each one is to preserve the status of its position to maintain themselves or simply to exist.

Personal relationships and continuity are serious issues notably in the vision where everyone expects in the improvement of what they can realize for both citizens and companies.

In other words, each one try to be the leader to renew the management to satisfy their voters but in reality they blocked each other.

The only issue of this question is to modify relationships between the two partners as so to find another sense of performance. This is a real challenge to use differences as « checks and appropriate size » to achieve public and private purposes. This requires negotiating the structure of what they want to do in advance.

The results of such negotiations reflect the power of each partner in outside the partnership; the main advantage is the creation of a balance of power for the partners.

If we would stay on the idea that one of them is more powerful than the other one, we can create nothing with this basis. By the way, it's another idea of partnerships instead of having competitors with the aims to still get more and more, the partners become unified for operating aims. We completely change the message towards citizens and companies. Then, we enter in a strategy « win and win ».

However, to ensure relatively fair partnerships, public partners should not overtake their power in transforming it in a judgment of each situation they set up and private partners should be in a position sometimes to understand and to accept the public policy in favor of companies.

Negotiation in detailed terms such as those can plainly mean that on a hand, the new partnership costs by the involvement on another hand, the partnership make benefits for everyone because the balance is earned and the results can be measured.

The object relates mainly to the advantages which the private and public partners can mutually bring while ceasing looking itself like competitors.

They have to gain while collaborating on joint projects instead of systematically seeking to remain on closed aspects relating to their prerogatives. In other words: why not to make so that the public and private partners lay down common objectives in order to reach a decisive advantage for those which they represent and often are find themselves in the two camps. for example: we can belong to the public sector and to be interested by the results of the private companies, just like we can be in a private company and be interested in the performances of the public sector. In short terms: each sector is complementary especially if there are jointly laid down objectives.

We have to explain : operating aims :

In the private sector : companies need many services from public sector : for example education, transportation, social services, country services like water distribution, energy

In the public sector : citizens and civil servants need activities, profit, employment from companies

Then : If we consider that the sectors are in competition and completely different each other we can fall the success for everyone in the country. That's to say : collaboration is possible for the two sectors in order to succeed.

In transportation we can have both private and public companies on the same markets.

In this context, each company can make profit and create employment if the organization of transportation is discussed and share in the sense of the passenger.

In that exemple, we see the real advantage for everyone : shareholders, citizens, government, civil servants.

Then operating aims are agreement in competition organized in order to give advantages for everyone.

But we can think competition is wrong in this aspect of negotiation.

It seems to be true if we forget that government and mainly European Community is the keeper of competition in every country of EC.

It's a kind of guarantee to recognise aims like genuine and real systems of cooperation between the two sectors.

In this context, we can accept a new economic and politic agent represents by European Community.

The third agent is for citizens and companies the real issue of their own aims.

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## INTEREST RATES LIBERALIZATION OR ECONOMY CONTROL- THE CASE OF THE CHINESE BANKING SYSTEM

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### ABSTRACT

The Chinese Central Bank decided on June 8th and July 6<sup>th</sup>, 2012 on the duplication and consecutive cut of the deposit and loan interest rates, together with the simultaneous loosening of the interest rate floating range of their financial institutions. Unquestionably, these measures resulted in a drastic change of the operating strategies of the whole banking system, for both nationalized and the private commercial banks.

The paper aims at following up on the causes and effects of these decisions in the Chinese banking arena, predicting a higher possible level of bad loans and followed by a higher systemic risk due to the major three banks reaction and copy-cat decision in fixing interest rates. The research methodology is utilizing the GARCH (1,1) model and the VaR to identify the way the interests are adjusted and study if this decision was towards a real liberalization or rather a controlled interest rate change by the authorities.

Eventually, the Chinese interest rate liberalization bring with it good and bad news to the economy, while the essence remains in how such liberalization is handled and what is it aimed for the entire economy.

**Keywords:** *interest rates liberalization, GARCH model, VaR, risk management, commercial banking, China, economic models, central bank, emerging economy*

### INTRODUCTION

The term structure of interest rates, determining the relationship between yields on a bond and time to maturity, but also access to credit, and monetary policies, plays a fundamental role in economics and finance, including also in the derivatives pricing, hedging, and risk management (Hong et al, 2013).

The BOC (Bank of China) was the 3<sup>rd</sup> of all four, prodigious and nationalized commercial banks of China that was listed on the Chinese mainland and Hong Kong Stock Exchange since 2006. The development of BOC was under the influences of both government policies and of the financial market, factors which led to a number of calculated acts, the nature of which was determined to be imperative, in order to successfully adapt not only to the financial development and to the government policies, but



also to increase profitability and to attain a potential risk decrease in order to become more profitable and competitive worldwide.

Richard Harris (2014) an Interment fund executive in Hong Kong mentioned that the Chinese government's world-record US\$4 trillion of foreign reserves could back local government borrowing, but this is not cash with which to pay off irresponsible debt accumulation. The aim of this research was to investigate Chinese interest rate liberalization, especially the way interest-rates adjustment affected the development of BOC, through the analysis of BOC's returns, risks and stock price and consequently be able to provide certain recommendations for the banking system. In this respect, we have looked into the following aspects:

- The impact of interest rate on profitability
- The effects of interest rate on stock price
- The influence of interest rate on risks

For bringing the study and its results closer to the readers, we adapted the paper structure, presenting first the methodology, then the literature review supporting directly the results analysis, followed by conclusions, recommendations, study limitation and further research., references and five appendices including the calculations of the models selected for this research.

## METHODOLOGY

Our process of sample selection using secondary data analysis (Sekaran and Bougie, 2010) uses the following defining elements:

1. One-year deposit and loan interest rates, overnight Shanghai inter-bank offering interest rate, quarterly NII and equity of three banks: BOC (Bank of China), CCB (China Construction Bank) and CMBC (China Merchants Bank), and their daily stock price and turnover sourced from these banks' websites.
2. The size of the sample: due to the requirements, minimum sample sizes of GARCH (1,1) and VaR were both 500 as the size of the data sample.
3. The time period of sample: the release time policy and other related factors; according to the principles above, this study selected a one-year and daily overnight Shanghai Offered interest rate, stock price and stock turnover of BOC in 500 days between September, 2010 and November, 2012.

The data analysis' steps used in this study are the following:

1. Research of NII and operating revenue from BOC's quarterly, the half year and annual financial reports and then compared the proportions of NII accounting for operating revenue in each quarter from 2007 to 2012 to analyze the importance of NII to BOC profits (Molyneux and

Thornton, 1992).

2. Collected each quarterly return on equity (ROE) of BOC in the period of 2007 to 2012 from the BOC quarterly, both the half- a- year and annual financial reports, and then calculated the ROE. Noticed that this research used the NII instead of net income because its purpose was to discuss the relationship between interest rate and profits.
3. Calculated the change rate of ROE in local currency.
4. Collected and calculated the average deposit and loan interest rates and their change rate in each quarter. Discussed how the interest rate might impact net interest income and equity of BOC and the influence on its profitability. And then it also needed to compare the results of BOC to the results of CMBC.

Secondly, by aiming at the ways that interest rate impacted stock price, this research adopted adjusted GARCH (1,1) model to measure interest rate changes affecting the stock price volatility ( Hong et al., 2013, Morgan. & Smith, 1987). Previous to this, it needed to verify whether the stock price had established any correlation between banks.

Therefore, the specific solution steps of this part were:

1. Used Spearman Correlation to calculate correlation coefficients between each of the two banks as shown in Appendix 1. If the coefficients were large enough, then it continued using GARCH(1,1) in order to resolve the question ( Hong et al., 2007).
2. The variables were daily variations of SHIBOR  $r_i$  and daily stock returns of BOC  $\mu_i$ . Moreover,  $r_i$  was calculated through the followed formula:

$$r_i = R_i - R_{i-1} \quad (3.1)$$

where  $R_i$  was  $i$ th day SHIBOR inter-bank offered overnight rate.  $\mu_i$  was shown as:

$$\mu_i = \ln\left(\frac{S_i}{S_{i-1}}\right) \quad (i = 1, 2, \dots, n) \quad (3.17) \quad (\text{Hull, 2010})$$

where  $S_i$  was the  $i$ th day BOC's closing price in SSE Composite Index.

The specific steps to resolve this question were the following:

1. Introduced interest rate as an exogenous variable into adjusted GARCH(1,1) the formula being 3.11 in order to analyze the effects of interest rates on stock price from the aspect of the rise and fall of the rate. The research for the successful contemplation of the question was achieved by Excel.
2. Compared the results of BOC with two other banks in order to answer the research question, based on the results shown in Appendix 2, 3 and 4.

Thirdly, by using VaR (value at risk) to measure the bank's risk, the use of several key factors was considered mandatory, such as the market value of the portfolio, holding period, confidence level and annual volatility.

The specific procedures to achieve VaR were the following:

1. Collected daily trading turnover of BOC stock in the sample and calculated the average turnover using arithmetic mean formula:

$$\text{Turnover Average} = \frac{\sum \text{Daily trading turnover}}{\text{No. of days}} \quad (3.18)$$

The turnover average could be thought as an item of market value of portfolio.

2. Calculated the annual volatility  $\sigma_{\text{annual}}$  using historical data and then calculated the daily volatility  $\sigma_{\text{daily}}$  through accomplishing the following process:

First of all, let the return during the  $i$ th interval  $\mu_i$  be calculated by formula 3.17. (Hull, 2010)

Then calculated the usual estimate  $s$  of the standard deviation of the  $\mu_i$  by using the formula:

$$s = \sqrt{\frac{1}{n-1} \sum_{i=1}^n (\mu_i - \bar{\mu})^2} \quad (3.19)$$

where  $n+1$  was the number of observations,  $S_i$  was the value of variable at the of  $i$ th interval ( $i = 0, 1, \dots, n$ ),  $\bar{\mu}$  was the mean of the  $\mu_i$ . The standard deviation  $s$  was regarded as  $\sigma_{\text{annual}}$ . (Hull, 2010)

3. Used the GARCH(1,1) model to get the results of BOC annual volatility. Because  $\sigma_1^2$  did not exist, so it could not ensure  $\sigma_2^2$ . By adopting the Excel tool and using the sample variance of daily stock return  $\mu_i$  (saw the formula 3.16) as  $\sigma_2^2$  to get out the parameters in turn. Eventually all parameters joined into the GARCH (1,1) formula to calculate other  $\sigma_n^2$ .
4. Figured out the daily volatility  $\sigma_{\text{daily}}$ , the size of sample was 500. So set  $\tau = 1/500$  then the estimate for the daily volatility  $\sigma_{\text{daily}}$  should be (Hull, 2010, 2<sup>nd</sup>ed):

$$\sigma_{\text{daily}} = \sigma_{\text{annual}} / \sqrt{500} \quad (3.20)$$

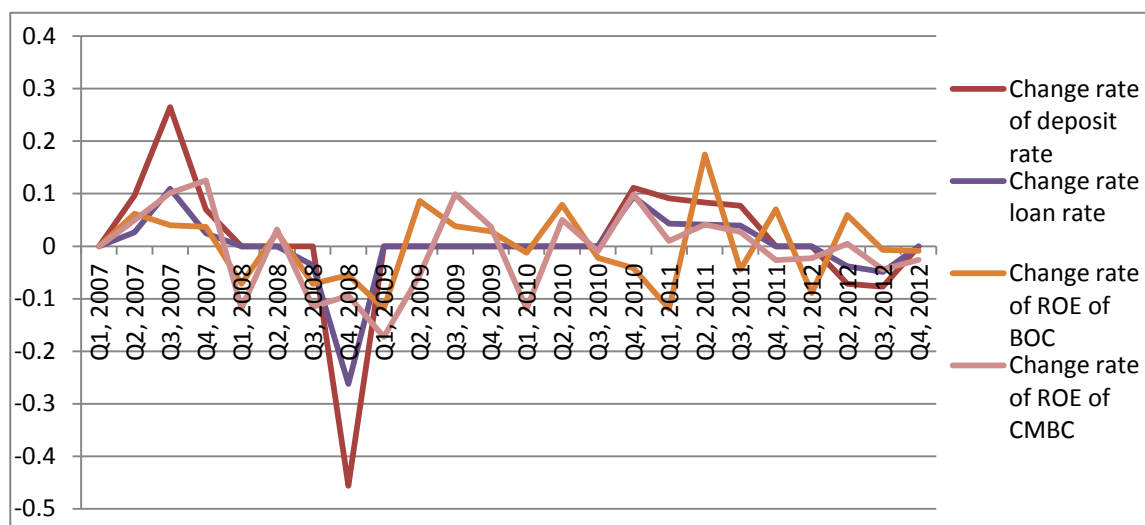
5. Substituted two different confidence levels into VaR model and discussed. It did not mean that the higher confidence level the better for the banks, the reason being that that profit was directly proportional to the risk- there would not be any profit without business risks. (Hull, 2010, 2<sup>nd</sup>ed). According to the estimated default probabilities as indicated by the rating class table from Christopher James (1996), the coverage level of class A ( of these banks) should be 99.89%. Therefore, this paper chose the two confidence coefficients 95% and 99.89% to see the differences in variability of the results, if the case.
6. Calculated the two other banks' VaR (Jorinon, 2001): the private bank CMBC and the nationalized commercial bank CCB, and then compared and discussed them in relation to BOC. This research question was achieved by Excel in Appendix 5.

Although, there is no perfect model used to resolve all the similar problems of GARCH (1,1), this model was used both in researching the relationships between interest rate and stock price, as well as evaluating the risk, repeatedly. The comparison with the results' analysis of other banks helped provide some comprehensive information on BOC in order to understand its unique characteristics.

## LITERATURE REVIEW AND ANALYSIS OF RESULTS

As shown in the following Figure 1, ROE fluctuation trends of BOC and CMBC were basically the same, but fluctuation of BOC was obviously stronger and more advanced than CMBC. Besides, they were not linked to fluctuations of interest rates. When interest rates rose, ROE might appear either as an upward or a downward trend (Kaufman, 1980, Chen 2007); even if interest rates did not change, the banks ROE fluctuating would still occur.

**Figure 1 Trends of Interest Rates & Their Change Rates and ROEs & Their Change Rates**



Original data source: BOC & CMBC Annual Financial Reports 2007-2012  
(<http://www.boc.cn/investor/ir3/> & <http://www.cmbchina.com/CMBIR/intro.aspx?type=report>)

**Table 1 Results of Each Bank using GARCH(1,1) Method under 5% Confidence Level from Research results.**

	BOC	CCB	CMBC
$\alpha$	0.0280000000	0.0280000008	0.0280000007
$\beta$	0.9590000000	0.9700000000	0.9700000010
$\omega$	0.0000011990	0.0000007000	0.0000005992
$V_L$	0.0000922308	0.0003500014	0.0002996003
Persistence	0.9870000000	0.9980000008	0.9980000017

From the table above, persistence of BOC was very high, at 98.7%, meaning that volatility had a high persistence with an impact on stock price that would be sustained over a long term. One of the reasons

of the weak relation between interest rate and stock price was that China's interest rate controls limited the interest rate floating (Chen, 2007). Due to the fact that China's financial reform was still at a preliminary stage, the development of financial market consists of many deficiencies: incomplete market system, lack of market risk-defending and regulatory ability, scarce trading products and tools, etc (Alpera and Anbar, 2011, Feyzioğlu, et al, 2009, Wright and James, 1996). As a result this has driven investors (mainly individual investors) to asset allocations that were converted between money market and capital market with difficulty. Interest rate in terms to the role of cash flow regulation was not obvious and less effects on the stock market volatility.

The second reason was the time-lag and conditionality of stock price to monetary policy, which could reduce the interest rate regulation function greatly, and may even achieved the opposite effect against the monetary policy goal (Mc Kinnon, 1973). The theory effect of interest rate adjustment on the stock market would become clear only through the overall mentality of the market tending to stabilization.

The third reason was the difference of real interest rate and nominal interest rate. Only when the nominal interest rates and real interest rates changed in the opposite direction, real interest rates could really reflect theory effect of impact of interest rate adjustment on the stock market. Nominal interest rates were slashing, due to the fact that the price of commodities fell faster and larger and as a result the real interest rates were likely to remain at high levels.

The fourth reason was the most direct reason affecting stock volatility, which was the relative price of the BOC stock. Early in the development of the stock market, the speculative phenomenon was prevailing and it caused the relative price of the stock of quite a lot of large listed companies to be were higher, and of course BOC was one of them as one of the big four banks. Although after several years of adjustment, the situation improved, but the risk was not completely eliminated. The high stock relative prices weakened the cuts effects, which limited the share price's raise potential when interest rates decreased.

In addition, the excessive speculation and irrational behaviors of the Chinese investors often made stock market volatility deviate from the economic law. It led to the inverse relationship between interest rate and stock price lacking of solid foundation. The stock market could not act as a barometer of monetary policy affecting on the economy, which weakened the effect of monetary policy.

Through the combination of a number of researchers in the theoretical analysis of the stock market in China, it was easy to discover that China's stock market was still a weak form efficient market which meant that the past historical market information was fully reflected in the current stock price. The market had not any rapid response after the interest rate continued to rise; the investors could also get a certain number of abnormal profits. The interest rate was out of action in short term.

**Table 2 The VaR Results of Each Bank using Historical Data Estimating Volatility Method**

	BOC	CCB	CMBC
<b>Average trading turnovers</b>	29,168,510	38,457,933	61,400,806
$\sigma_{daily}$	0.041488%	0.048312%	0.065204%
$\sigma_{500days}$	0.927694%	1.080296%	1.458009%
<b>VaR at 95.00%</b>	19,904.96	30,561.24	65,853.15
<b>VaR at 99.89%</b>	37,052.10	56,888.24	122,582.39

It could be obviously proven that, the daily volatility and yearly volatility of BOC were both less than that of the other two banks. It indicated that once the interest rate was changed, the volatility of BOC stock price and risks of holding share were both smaller than the rest. Although the volatility of CCB was bigger than BOC's, it was nevertheless more closed to it. CMBC volatility, obviously, was the largest one among the three, direct proportional to the risk of CMBC holdings.

For volatility analysis, risks of investing state-owned commercial banks were generally less than investing in private commercial banks. One of the reasons was that the state-owned banks were more cautious on loans compared to private banks, which generally only lent to large projects fostered by state policies or large state-owned enterprises, thus the risk of bad loans was small; vis-à-vis, private banks lending conditions and audit conditions were looser than state-owned, which led to high profit but once interest rates increased it would increased their bad loans risk. However, it is only in 2014, or more recently, when we noticed that Chinese property companies are buying stakes in banks and raising fears that the country's already stretched developers are trying to obtain preferential financing from their lenders (Rabinovitch and Noble, 2014).

According to the analysis of the VaR, this model was mainly affected by two aspects: annual volatility and average trading volume. Observing the average trading volume only and compared with the other two, the average volume of BOC was the minimum, even less than half of CMBC. This was likely due to the fact that the profitability of the banks was relatively lower, and a low volatility led to reduced investment profits, thereby the trading volume per day was small. However, combined with annual volatility, the possible maximum loss was also the smallest, even though under every confidence coefficient -interest rate risk, BOC's was the smallest in the three.

Utilizing Excel Solver to process data under the GARCH(1,1) (Formula 3.8) model and then draw the  $\omega, \alpha, \beta$  and daily volatility  $\sigma_{daily}$ , and then use the formula (4.1) to get  $V_L$

$$V_L = \frac{\omega}{1 - \alpha - \beta} \quad (4.1)$$

Then formula 4.2 was used to calculate the volatility  $\sigma_{daily}$  of BOC, CMBC and CCB in 500 days.

$$E[\sigma_{n+k}^2] = V_L + (\alpha + \beta)^n(\sigma_n^2 - V_L) \quad (4.2)$$

It asserted results from above and calculated these banks' VaR through also utilizing Excel. The confidential level was also selected 95% and 99.89%.

**Table 3 The VaR Results of Each Bank using GARCH(1,1) Method**

	BOC	CCB	CMBC
$\alpha$	0.0280000000	0.0280000008	0.0280000007
$\beta$	0.9590000000	0.9700000000	0.9700000010
$\omega$	0.0000011990	0.0000007000	0.0000005992
$V_L$	0.0000922308	0.0003500014	0.0002996003
Persistence	0.9870000000	0.9980000008	0.9980000017
GARCH(1,1)	0.044393	0.066544	0.111275
Overall MLE	1618.526468	1549.931285	1405.098037
$\sigma_{daily}$	0.920982%	0.920983%	0.920985%
$\sigma_{500days}$	0.92736185%	1.0816653%	1.4594519%
VaR at 95.00%	19,897.83	30,599.98	65,918.32
VaR at 99.89%	37,038.83	56,960.35	122,703.71

The results above clearly proved the fact that, using the VaR model that was based on the GARCH(1,1) in order to calculate data, could basically reflect the similar characteristics to the former method. It could be said that the use the two methods in calculating the volatility of stock price was in both cases effective. The confidence was higher, the range of probability was greater, and then the probability of the biggest losses that the banks suffered was bigger.

There were great different values of daily volatility between using historical data method and GARCH(1,1). The first reason should be that the calculation principles were discrepant: the former only focused on the daily stock return  $\mu_i$  and used standard deviation as the annual volatility; although GARCH(1,1) also used  $\mu_i$ , it introduced parameters to anticipate the process. Another reason was that they used different formulas to compute the daily volatility: the former only depended on

annual volatility, but the latter not only depended on annual volatility but also depended on the coefficients.

In addition, the influence of interest rate changes on BOC non-performing loans rate was also evident: as interest rates rose, the opportunity cost of loan would be expanded, the difficulty of the enterprise repayment and default risk would increase, thereby causing the ratio of bank bad debts would increase; As interest rates declined, the opportunity cost of lending shrunk inevitably thus causing BOC's bad debts rate to drop down.

But, due to the fact that BOC carried a lot of obligations regarding policy loans and strict systems of examination and approval, it therefore usually only lent the enterprises that the government would pay for, just as any other nationalized commercial bank in China did. These enterprises were large enough, which did not allow them to have measurable sensitivity to interest rates basically. In this case, when interest rates rose, the difficulty of the enterprise repayment became bigger and caused delinquency rates get higher in private banks than BOC. All in all, there was still a weak relationship between interest rate and BOC risk. However this cannot be extended to the other two banks that may encounter due to their risk higher NPL (non performing loans) levels in the near future.

## CONCLUSION AND RECOMMENDATIONS

It appears there was not a direct influence of interest rate on BOC profitability because the funding gap and duration gap controlled by managers could change the profitability of bank in general, while the results of the research confirm this also. Due to the fact that the influence of the interest rate on stock price was based on a variety of external factors, there was an ordinary correlation between interest rate and stock price. The volatility and value-at-risk of BOC were both smaller than of the other two banks. It indicated that the investment risk of BOC was lower than others and that BOC looks safer than the other two banks.

### **How does the Chinese interest rate liberalization impact the development of BOC on its profits?**

Interest margin occupies an important position on the main profit of BOC at about 70%, because of the wide interest rate spread ( Hong et al, 2013), the low social welfare level of the Chinese population, the segregation of financial business, China's underdeveloped capital markets and fewer financial instruments.

These factors create high NII proportion of the operating income collectively. Due to the fact that there is not a direct relationship between interest rate and NII and equity and that the two variables can be adjusted by funding gap and duration gap respectively, managers therefore are able to change the character and size of the two gaps either together or respectively in order to fit the change of interest rates so as to influence the ROE used to measure BOC profitability (Gup and Kolari, 2005). Comparing



to CMBC, BOC can adjust the gaps beforehand, the reason may be BOC could get the information in advance as a state-owned bank and it has to adjust early as a large size bank, despite time lags.

### **How does the Chinese interest rate liberalization influence the development of BOC on its stock price?**

According to the results of Spearman Correlation (Appendix 1), the coefficients between each of the two banks are about 99%. This means that once a bank stock price is increased, others stock prices will follow. This phenomenon is more obvious between the state-owned banks. The changes in interest rates impacting on BOC stock price volatility indeed exist, but the number is very small. The reason is that there are still other important factors influencing the BOC stock volatility, such as interest rate control, real interest rate, relative price, investor expectation and behaviors, weak market efficient form and time lag effect of monetary policy (Cheng, 2007).

In addition, compared with the private bank CMBC and with the nationalized bank CCB, the volatility of BOC stock price is smaller, which means that the price volatility of the BOC share is more difficult to be influenced by external factors than the other two banks. The GARCH(1,1) results show that the persistence of each bank was about 99%, which illustrates that the volatility of interest rate exists in a long-term impact on the volatility of stock price.

### **How to identify and measure the interest rate risks of BOC?**

The results of VaR clearly proved the fact that, by using a VaR model that is based on the historical data and GARCH(1,1) it reflected the similar characteristics, which showed that both methods used to calculate the volatility of stock price are effective. Risks of investing state-owned commercial banks are generally less than that of the investing private commercial banks. The reason is that the state-owned banks are more cautious on loans compared to private banks and only lend to large projects fostered by state policies or large state-owned enterprises, thus the risk of bad loans is small.

Comparing BOC's VaR with that of the other two banks, the reasons of minimum average volume of BOC include low volatility of stock price and low profitability. Besides, the higher the confidence level the greater the range of probability, and then the higher the probability of larger losses that banks will suffer. In addition, the rise of interest rates also causes the increase of the ratio of bank bad debts. But the bad debts extent of BOC was lower than private banks because it was under control of government.

### ***Conclusions about the research hypotheses***

There are indeed existing impacts of interest rate on BOC profitability, stock price and stock volatility though indistinctive.. The correlations among the banks' share prices are very strong, but it cannot indicate that it is all about the interest rate. The high persistence of each bank illustrates that, the banks stock price volatility impact on interest rate is long-term and is not changed easily in the short run.

Due to the Chinese complex financial environment, immature investors' psychology and other multiple important variables acting together, the influence of interest rate is very unidentified and difficult to be measured. Finally, compared with private banks, BOC has a relative low market risk which depends on strictly enforcing the monitoring systems, the latest inside story, and the bank looks to be more cautious on offering loans, as a state-owned bank.

### Recommendations

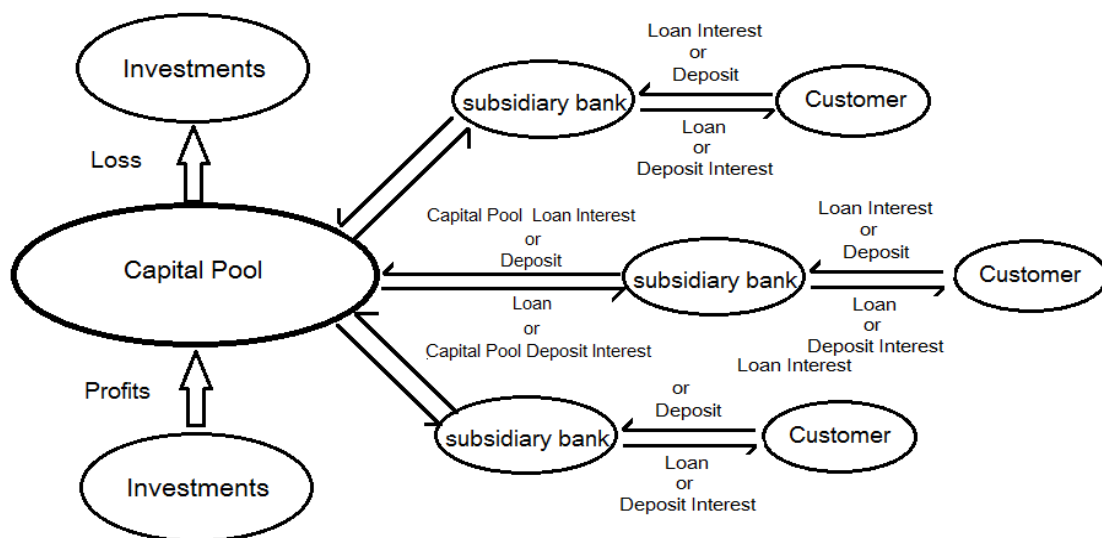
The suggestions include two main aspects which include the increase of its earnings and the control and reduction of risks in line with the analyzed elements, as follows:

1. *Increase earnings* may include the increasing of income and the reduction of expenditures. However, both employ different strategies:

1) Reduction of the costs and losses from the capital pool

BOC uses capital pool to manage all the subsidiary banks capital uniformly in long-term duration. The BOC subsidiary bank must save deposit money from customers into Capital Pool to get capital interest deposit interest (part of subsidiary bank incomes) and take out money from it to provide loans to customers and also they need to pay capital pool loan interest (part of subsidiary bank expenses). The whole process is shown as follow:

Figure 2. Operating Process of BOC's Capital Pool



As the diagram indicates, the net interest incomes spreads of subsidiary banks equal to "loan interest - capital pool loan interest - deposit interest + capital pool deposit interest". This measure might be good for mitigating risks, but it will cause the decrease of the income of subsidiary banks and the increase of operating costs. Therefore, BOC should optimize the capital pool strategy to increase the real net interest income of subsidiary banks.

## 2) Optimize loan structures

Because the bargaining power of small, medium and micro -sized enterprises are lower than that of large high quality loan customers and therefore the loan interest rates pricing for small, medium and micro -sized enterprises are higher than large high quality loan customers. This is one way to improve the profit of BOC. In order to decrease the influence of interest rate adjustment to the profit as much as possible, BOC should deversify more efforts to developing the intermediate and derivative business rather than interest income related.

## 3) Other measures

BOC may strengthen pricing management and improve pricing level, not only should further implementation of fine management complete the costs and benefits of accounting, but also it should have risks pricing power based on the credit risk, market risk and operation risk, so as to work out the rate interval you could handle, for the final deposit and loan interest rates pricing to provide technical support to prevent blind competition. BOC should also continue to develop the financial derivatives innovations.

*2. Control and reduce the risks* refers to three key strategies of BOC:

### 1) Scattered loan to spread out risk

In the past BOC was only lending loans to large state-owned enterprises which needed a lot of money and whose loan life was very long. Due to current circumstances these enterprises are restructuring a self-sustaining economic model. Thus this situation leads to high risk in terms of the repayment of the debt. BOC should begin to change the customer structure, from large and high bargaining power enterprises transferring to small, medium and micro-sized enterprises.

### 2) Operational risk management

The bank must continue in promoting the New Basel III Capital Accord operational risk project implementation, complete the bank operational risk management system, optimize the operational risk management information system, promote the integration of group operation risk monitoring platform construction, develop the operational risk management evaluation and capital measurement and improve the meticulous management. (Mihai Yiannaki , 2012).

### 3) Capital management

BOC needs to accord the medium and long-term capital planning requirements of the group to strengthen internal capital management, optimize the assets structure, in order to make the capital base further compaction. It should also continue to strengthen the capital management, improve the capital budget precision and efficiency, control risk asset scale reasonably, reduce the average weight of risk assets in order to realize the transformation from capital consumption to capital saving and promote the sustainable development of business.

In addition, it should increase the comprehensive benefit evaluation efforts, improve the weight of capital return index in the performance evaluation, guide the branch institutions and business department to develop the comprehensive benefit of higher capital take up less business preferentially, improve capital efficiency, to go “light capital” development way (Rose and Hudgins, 2012).

## RESEARCH LIMITATIONS

As an empirical research paper, there must be some limitations that cannot be conquered. First of all, although this research focuses on the interest rate, it ignores the influence of inflation on the interest rate. Real interest rate is the real impact index of financial market behavior and banks profits.

Secondly, there is insufficient accuracy in the application of calculation formula and models. ROA, despite its small values should be used to analyze the impact of interest rate on profitability instead of ROE, because ROA could overcome the drawbacks of ROE, although there may be other off balance sheet activities involved in the creation of the NII (Gup and Kolari, 2005, and Crojé and de Beer, 2010). Besides, there are shortcomings in using GARCH and VaR to measure volatility and risk of banks (Sensarma and Jayadev, 2009).

Thirdly, because the Bank of China has been listed on the Chinese Stock Exchange since 2006, the data used to analyze is so limited that they cannot illustrate the conclusion of the research adequately. In addition, considering the reliability of the lack of data in the sample selection issues makes the peak data bigger and the results are dispersed and not obvious.

Fourthly, the data come from secondary research which sometimes cannot express the authenticity and integrality but always tend to the policy of government, which leads to an inaccurate conclusion of the research.

In addition, this research ignores the relationships among profits, stock price and risks but analyzes these aspects separately, as per Lobo (2000).

## FURTHER RESEARCH

According to the limitations of this research and in order to make it better through further research, it could be indicated that there are three aspects that can be of great assistance: establish the precise models and select the appropriate sample for data analysis, join the two factors inflation rate and real interest rates instead of the nominal interest rate to study the relationships between interest rate liberalization and performance of BOC; pay more attention into analyzing the interrelation and interaction between and among the banks' profitability, stock issues and risks ( Mihai Yiannaki, 2013).

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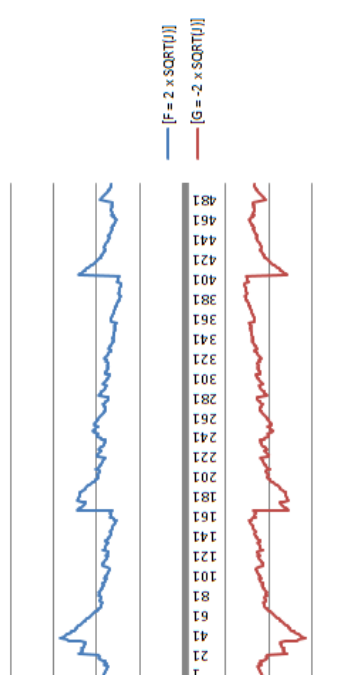
BOC & CMBC Annual Financial Reports 2007-2012 (<http://www.boc.cn/investor/ir3/> &<http://www.cmbchina.com/CMBIR/intro.aspx?type=report>)

## APPENDIX 1 RESULTS OF SPEARMAN CORRELATION COEFFICIENTS OF BOC, CCB & CMBC

	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S
	Date	BOC Closing price	CCB Closing price	CMBC Closing price			BOC Vs CCB				BOC Vs CMBC					CCB Vs CMBC			
1																			
2	2010/9/1	3.35	4.66	13.59			1.31 1.7161				10.24 104.86					8.93 79.7449			
3	2010/9/2	3.37	4.69	13.65			1.32 1.7424 SUM=	1263.212			10.28 105.68 SUM=	43155.8989				8.96 80.2816 SUM=	29762.3263		
4	2010/9/3	3.36	4.68	13.63			1.32 1.7424 p=	0.99983937			10.27 105.47 p=	0.997928509				8.95 80.1025 p=	0.998571403		
5	2010/9/6	3.39	4.73	13.88			1.34 1.7956				10.49 110.04					9.15 83.7225			
6	2010/9/7	3.4	4.71	13.85			1.31 1.7161				10.45 109.2					9.14 83.5396 n*(n-2)=	124999500		
7	2010/9/8	3.37	4.68	13.56			1.31 1.7161 Y(CCB)	0.11744391			10.19 103.84 Y(CMBC)	1.882440671				8.88 78.8544			
8	2010/9/9	3.34	4.65	13.23			1.31 1.7161				9.89 97.812					8.58 73.6164			
9	2010/9/10	3.35	4.63	13.28			1.28 1.6384				9.93 98.605					8.65 74.8225			
10	2010/9/13	3.34	4.65	13.26			1.31 1.7161 X(BOC)	0.05082822			9.92 98.406 X(BOC)	0.050828216				8.61 74.1321			
11	2010/9/14	3.33	4.52	13.37			1.19 1.4161				10.04 100.8					8.85 78.3225			
12	2010/9/15	3.3	4.51	13.1			1.21 1.4641				9.8 96.04					8.59 73.7881			
13	2010/9/16	3.24	4.51	12.8			1.27 1.6129				9.56 91.394					8.29 68.7241			
14	2010/9/17	3.23	4.57	12.85			1.34 1.7956				9.62 92.544					8.28 68.5584			
15	2010/9/20	3.23	4.56	12.89			1.33 1.7689				9.66 93.316					8.33 69.3889			
16	2010/9/27	3.28	4.57	12.83			1.29 1.6641				9.55 91.203					8.26 68.2276			
17	2010/9/28	3.27	4.67	12.62			1.4 1.96				9.35 87.423					7.95 63.2025			
18	2010/9/29	3.32	4.76	12.66			1.44 2.0736				9.34 87.236					7.9 62.41			
19	2010/10/8	3.38	4.75	13.43			1.37 1.8769				10.05 101					8.68 75.3424			
20	2010/10/11	3.43	4.82	13.9			1.39 1.9321				10.47 109.62					9.08 82.4464			
21	2010/10/12	3.42	4.92	13.84			1.5 2.25				10.42 108.58					8.92 79.5664			
22	2010/10/13	3.44	5.18	14.48			1.74 3.0276				11.04 121.88					9.3 86.49			
23	2010/10/14	3.49	5.23	14.54			1.74 3.0276				11.05 122.1					9.31 86.6761			
24	2010/10/15	3.65	5.28	15.2			1.63 2.6569				11.55 133.4					9.92 98.4064			
25	2010/10/18	3.63	5.29	15.27			1.66 2.7556				11.64 135.49					9.98 99.6004			
26	2010/10/19	3.62	5.19	15.48			1.57 2.4649				11.86 140.66					10.29 105.8841			
27	2010/10/20	3.6	5.2	15.73			1.6 2.56				12.13 147.14					10.53 110.8809			
28	2010/10/21	3.55	5.25	15.15			1.7 2.89				11.6 134.56					9.9 98.01			
29	2010/10/22	3.51	5.18	15.02			1.67 2.7889				11.51 132.18					9.81 96.8755			

## APPENDIX 2 DATA/RESULTS OF GARCH(1,1) MODEL OF BOC

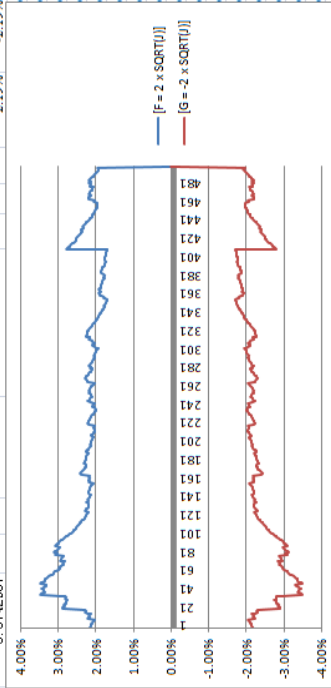
	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T
1	Date	Opening price	Ceiling price	Bottom price	Closing price	Turnover	Return	Log Return	Log 2 Return	GARCH(1,1)	Maximum Likelihood									
2	2010/9/1	3.35	3.38	3.33	3.35	45,486,778	$[G = E - \text{Lag}(E)]$	$[H = \text{LN}(G \cdot \text{Lag}(G))]$	$[I = H^2]$	$[J = \omega + \alpha^2 \cdot \text{Lag}(J) + \beta^2 \cdot \text{Lag}(J)]$	$[K = (-0.5 \cdot \text{LN}(2 \cdot \pi) - 0.5 \cdot \text{LN}(J)) \cdot 0.5 \cdot (J)]$				$\omega = 0.0000011990$					
3	2010/9/2	3.35	3.38	3.34	3.37	33,968,074	0.02	0.005952	0.0000354	0.0000086	3.555439344				$\alpha = 0.02800000000$					
4	2010/9/3	3.37	3.38	3.34	3.36	33,055,838	-0.01	-0.002972	0.0000088	0.0000085	3.71699867				$\beta = 0.95900000000$					
5	2010/9/6	3.36	3.39	3.35	3.39	42,803,352	0.03	0.008889	0.0000790	0.0000083	3.303496997				Persistence=					
6	2010/9/7	3.39	3.42	3.38	3.4	41,898,687	0.01	0.002946	0.0000087	0.0000083	3.728658968				Overall MLE=					
7	2010/9/8	3.4	3.4	3.35	3.37	34,426,420	-0.03	-0.008863	0.0000785	0.0000081	3.308774229				GARCH (1,1)					
8	2010/9/9	3.37	3.37	3.33	3.34	35,642,784	-0.03	-0.008942	0.0000600	0.0000081	3.298033519				NOTES:					
9	2010/9/10	3.34	3.35	3.33	3.35	25,113,721	0.01	0.002990	0.0000089	0.0000081	3.736547662									
10	2010/9/13	3.35	3.35	3.31	3.34	36,334,768	-0.01	-0.002990	0.0000089	0.0000079	3.746929656									
11	2010/9/14	3.35	3.36	3.31	3.33	38,893,128	-0.01	-0.002999	0.0000090	0.0000077	3.756742095				1. Use Solver to set the value of:					
12	2010/9/15	3.33	3.33	3.29	3.3	40,296,605	-0.03	-0.009050	0.0000619	0.0000076	3.284421433				2. By changing \$O\$1:\$O\$3					
13	2010/9/16	3.3	3.31	3.21	3.24	48,206,709	-0.06	-0.018349	0.0003367	0.0000076	1.608067438				3. The constraint is that \$O\$4 <=					
14	2010/9/17	3.24	3.25	3.21	3.23	23,213,157	-0.01	-0.003091	0.0000096	0.0000083	3.719190248				4. Click on "Options" and select					
15	2010/9/20	3.23	3.26	3.21	3.23	22,017,641	0	-	-	0.000082	3.788268043									
16	2010/9/27	3.24	3.28	3.22	3.28	29,793,121	0.05	0.015361	0.0002360	0.000	4.00%									
17	2010/9/28	3.27	3.29	3.25	3.27	25,326,844	-0.01	-0.003053	0.0000093	0.000	4.00%									
18	2010/9/29	3.27	3.35	3.27	3.32	45,123,559	0.05	0.015175	0.0002303	0.000	3.00%									
19	2010/10/8	3.35	3.39	3.33	3.38	41,364,468	0.06	0.017911	0.0003208	0.000	2.00%									
20	2010/10/11	3.38	3.45	3.36	3.43	65,064,014	0.05	0.014685	0.0002156	0.000	1.00%									
21	2010/10/12	3.4	3.43	3.37	3.42	50,463,864	-0.01	-0.002920	0.0000085	0.000	0.00%									
22	2010/10/13	3.41	3.45	3.39	3.44	46,659,799	0.02	0.005831	0.0000340	0.000	0.00%									
23	2010/10/14	3.45	3.54	3.45	3.49	117,971,375	0.05	0.014430	0.0002082	0.000	0.00%									
24	2010/10/15	3.48	3.65	3.47	3.65	180,274,552	0.16	0.044625	0.0020093	0.000	0.00%									
25	2010/10/18	3.68	3.78	3.62	3.63	203,555,452	-0.02	-0.005495	0.0000302	0.000	-1.00%									
26	2010/10/19	3.62	3.62	3.55	3.62	108,583,232	-0.01	-0.002759	0.0000076	0.000	-2.00%									
27	2010/10/20	3.6	3.67	3.57	3.6	106,535,494	-0.02	-0.005540	0.0000307	0.000	-3.00%									
28	2010/10/21	3.6	3.61	3.53	3.55	60,893,563	-0.05	-0.013986	0.0001956	0.000	0.00%									
29	2010/10/22	3.54	3.57	3.48	3.51	52,231,764	-0.04	-0.011332	0.0001284	0.000	0.00%									
30	2010/10/25	3.51	3.57	3.48	3.56	65,422,118	0.05	0.014145	0.0002001	0.000	0.00%									
31	2010/10/26	3.56	3.58	3.49	3.52	54,735,916	-0.04	-0.011300	0.0001277	0.000	0.00%									
32	2010/10/27	3.51	3.56	3.5	3.52	41,893,866	0	-	-	0.000137	3.528233933									
33	2010/10/28	3.53	3.55	3.51	3.55	44,349,998	0.03	0.008487	0.0000720	0.000133	3.273332417									
34	2010/10/29	3.56	3.57	3.52	3.54	52,028,431	-0.01	-0.002821	0.0000080	0.000131	3.522602194									
35	2010/11/1	3.55	3.61	3.54	3.61	77,455,083	0.07	0.019581	0.0003634	0.000127	2.053869611									





## APPENDIX 3 DATA/RESULTS OF GARCH(1,1) MODEL OF CCB

A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T
Date	Opening price	Ceiling price	Bottom price	Closing price	Turnover	Return	Log Return	Log 2 Return	GARCH(1,1)	Maximum Likelihood									
1	2010/9/1	4.68	4.75	4.65	4.66	69,142,335	[G = E-Lag E]	[H = LN(G-Lag(G))]	[J = $\sigma^2 \cdot \text{Lag}(J) + \beta$ +1 Lag(J)]	[E = $(0.5 \cdot \text{LN}^2 + 0.5 \cdot \text{LN}^2) \cdot \text{Lag}(J)$ ]				0.000007000					
2	2010/9/2	4.7	4.73	4.68	4.69	46,682,982	0.03	0.008417	0.0000412	0.000117	3.432568877								
3	2010/9/3	4.69	4.7	4.63	4.68	68,674,673	-0.01	-0.002134	0.0000046	0.000115	3.596306904								
4	2010/9/6	4.69	4.74	4.68	4.73	60,887,603	0.05	0.010627	0.0001129	0.000112	3.125405106								
5	2010/9/7	4.73	4.74	4.69	4.71	45,255,418	-0.02	-0.004237	0.000180	0.000113	3.545971581								
6	2010/9/8	4.69	4.7	4.68	4.68	36,524,171	-0.03	-0.006390	0.0000408	0.000111	3.450866789			1549.931285					
7	2010/9/9	4.68	4.68	4.63	4.65	50,756,065	-0.03	-0.006431	0.0000414	0.000109	3.452702686			0.068544					
8	2010/9/10	4.66	4.66	4.6	4.63	46,695,559	-0.02	-0.004310	0.000186	0.000108	3.562359949								
9	2010/9/13	4.62	4.67	4.61	4.65	41,070,079	0.02	0.004310	0.000186	0.000106	3.570150449								
10	2010/9/14	4.58	4.58	4.5	4.52	67,476,960	-0.13	-0.026355	0.000840	0.000104	-0.203127392								
11	2010/9/15	4.53	4.54	4.48	4.51	39,368,448	-0.01	-0.002215	0.0000049	0.000124	3.559032753								
12	2010/9/16	4.51	4.54	4.5	4.51	25,909,422	0	-	-	0.000121	3.590578537								
13	2010/9/17	4.55	4.57	4.51	4.57	44,704,534	0.06	0.013216	0.0001747	0.000118	2.863678171								
14	2010/9/20	4.54	4.58	4.52	4.56	42,926,967	-0.01	-0.002191	0.0000048	0.000120	3.5742907								
15	2010/9/27	4.56	4.59	4.55	4.57	48,993,766	0.01	0.002191	0.0000048	0.000117									
16	2010/9/28	4.64	4.69	4.58	4.67	80,021,341	0.1	0.021646	0.0004685	0.000115									
17	2010/9/29	4.67	4.79	4.62	4.76	142,431,612	0.09	0.019069	0.0003644	0.000125									
18	2010/10/6	4.73	4.76	4.7	4.75	86,481,767	-0.01	-0.002103	0.0000444	0.000132									
19	2010/10/11	4.75	4.83	4.73	4.82	89,913,685	0.07	0.014629	0.0002140	0.000129									
20	2010/10/12	4.83	5	4.81	4.92	237,378,046	0.1	0.020535	0.0004217	0.000132									
21	2010/10/13	4.92	5.22	4.9	5.18	296,667,134	0.26	0.051497	0.0026519	0.000140									
22	2010/10/14	5.25	5.45	5.22	5.23	203,095,301	0.05	0.009606	0.0000823	0.000211									
23	2010/10/15	5.21	5.31	5.15	5.28	129,261,739	0.05	0.009515	0.0000905	0.000208									
24	2010/10/18	5.23	5.37	5.22	5.29	141,446,780	0.01	0.001892	0.0000036	0.000205									
25	2010/10/19	5.29	5.31	5.14	5.19	106,129,858	-0.1	-0.019085	0.0003642	0.000200									
26	2010/10/20	5.16	5.23	5.12	5.2	79,505,586	0.01	0.001925	0.0000037	0.000205									
27	2010/10/21	5.19	5.29	5.14	5.25	67,725,947	0.05	0.009569	0.0000916	0.000199									
28	2010/10/22	5.25	5.29	5.16	5.18	64,320,759	-0.07	-0.013423	0.0001802	0.000197									
29	2010/10/25	5.18	5.25	5.1	5.14	73,096,480	-0.04	-0.007752	0.0000601	0.000197									
30	2010/10/26	5.13	5.18	5.08	5.15	68,215,046	0.01	0.001944	0.0000038	0.000193									
31	2010/10/27	5.14	5.16	5.01	5.05	53,037,985	-0.1	-0.019608	0.0003645	0.000188									
32	2010/10/28	5.07	5.16	5.07	5.14	54,928,376	0.09	0.017665	0.0003120	0.000184									
33	2010/10/29	5.16	5.24	5.12	5.2	85,168,601	0.06	0.011606	0.0001347	0.000197									
34	2010/10/31	5.2	5.32	5.17	5.28	154,000,866	0.08	0.015267	0.0002331	0.000196									
35	2010/11/1	5.01	5.13	4.87	5.1	154,134,478	-0.18	-0.034686	0.0012031	0.000197									
36	2010/11/2																		



## ISBN: 978-9963-711-27-7

	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T
	Date	Opening price	Ceiling price	Bottom price	Closing price	Turnover	Return	Log Return	Log 2 Return	GARCH(1,1)	Maximum									S.D. Confidence band
							[G = B-Lag E]	[H = LN(G/Lag G)]	[I = H^2]	[J = e^-α * Lag(D)^β - Lag(J)]	[E = (-0.5 * Ln J)^-2]									
1	2010/9/1	13.59	13.86	13.42	13.59	101,371,980									ω = 0.0000005992					[F = 2 x SQR(TU)] [G = -2 x SQR(TU)]
2	2010/9/2	13.79	13.82	13.55	13.65	80,028,686	0.06	0.004405	0.0000194	0.000213	3.2635143				α = 0.0280000007					2.9%
3	2010/9/3	13.67	13.72	13.42	13.63	73,780,045	-0.02	-0.001468	0.0000021	0.000207	3.3164422				Persistence=					2.88%
4	2010/9/6	13.68	13.89	13.75	13.88	95,019,236	0.25	0.018176	0.0000304	0.000202	2.5166274									2.84%
5	2010/9/7	13.89	14.07	13.75	13.85	65,664,396	-0.03	-0.002164	0.0000047	0.000206	3.3145153				Overall MLE=	1405.098037				-2.87%
6	2010/9/8	13.77	13.77	13.51	13.56	90,697,533	-0.29	-0.021161	0.0004478	0.000200	2.2206322				GARCH (1,1)	0.111275				-2.83%
7	2010/9/9	13.58	13.58	13.18	13.23	106,961,793	-0.33	-0.024837	0.0006070	0.000207	1.8575815									-2.88%
8	2010/9/10	13.25	13.37	13.14	13.28	71,920,520	0.05	0.003772	0.0000142	0.000219	3.2625385				NOTES:					-2.96%
9	2010/9/13	13.27	13.38	13.05	13.26	100,727,597	-0.02	-0.001507	0.0000023	0.000213	3.3026305									-2.92%
10	2010/9/14	13.33	13.49	13.29	13.37	97,013,364	0.11	0.008261	0.0000683	0.000207	3.1570182									-2.88%
11	2010/9/15	13.35	13.35	13.14	13.31	77,844,655	-0.27	-0.020401	0.0004162	0.000204	2.3087436				1. Use Solver to set the value of t					-2.85%
12	2010/9/16	13.31	13.14	12.65	12.8	108,495,166	-0.3	-0.023167	0.0005367	0.000210	2.0366064				2 By changing \$O\$1:\$O\$3					-2.85%
13	2010/9/17	12.83	12.95	12.7	12.85	53,994,946	0.05	0.003698	0.0000152	0.000219	3.2593116				3 The constraint is that \$O\$4 <					-2.90%
14	2010/9/20	12.84	13.03	12.72	12.89	49,316,715	0.04	0.003108	0.0000097	0.000214	3.2842042				4 Click on "Options" and select.					-2.96%
15	2010/9/27	12.9	12.94	12.79	12.83	46,550,877	-0.06	-0.004666	0.0000218											-2.92%
16	2010/9/28	12.83	12.84	12.54	12.62	73,266,388	-0.21	-0.016503	0.0002724											
17	2010/9/29	12.51	12.83	12.51	12.66	53,191,603	0.04	0.003165	0.0000100											
18	2010/10/8	13.1	13.55	12.93	13.43	111,173,082	0.77	0.059044	0.0034861											
19	2010/10/11	13.5	14.05	13.47	13.9	180,388,127	0.47	0.034398	0.0011832											
20	2010/10/12	13.8	13.97	13.7	13.84	105,910,427	-0.06	-0.004326	0.0000187											
21	2010/10/13	13.97	14.55	13.97	14.48	212,063,903	0.64	0.045205	0.0											

## APPENDIX 5 VAR DATA/RESULTS OF BOC, CCB &amp; CMBC

	A	B	C	D	E	F
1	Confidence Coefficient	95%	99.89%			
2	NORMSINV	1.64485363	3.061814152			
3	Holding Period	1				
4						
5						
6		Turnover	Historical Data	Annual Volatility	95%VaR=Turnover*Normsinv*Annual Volatility/SQRT(500/Holding Period)	99.89%VaR=Turnover*Normsinv*Annual Volatility/SQRT(500/Holding Period)
7	BOC	29,168,510		0.93%	19904.95716	37052.09906
8	CCB	38,457,933		1.08%	30561.23928	56888.24426
9	CMBC	61,400,806		1.46%	65853.14664	122582.3946
10						
11						
12						
13		Turnover	GARCH(1,1)	Annual Volatility	95%VaR=Turnover*Normsinv*Annual Volatility/SQRT(500/Holding Period)	99.89%VaR=Turnover*Normsinv*Annual Volatility/SQRT(500/Holding Period)
14	BOC	29,168,510		0.93%	19897.83042	37038.83299
15	CCB	38,457,933		1.08%	30599.97635	56960.35142
16	CMBC	61,400,806		1.46%	65918.31736	122703.7067
17						

## A SUSTAINABLE EUROPEAN MODEL OF LEADERSHIP, INNOVATION AND MANAGEMENT IN THE HEALTH & MEDICAL CARE SECTOR

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### ABSTRACT

The general objective of the large research is to identify and assess the characteristics, limitations and opportunities related to managing legal performing and sustainable businesses in the field of Health & Medical Care sector in order to build a new, innovative model, assuming that policy design is indeed an important new area of design there are implications and opportunities for the design community needs and business models. The specific or task objectives of the research program are the following: • highlight the role of the Health and Medical Care sector in the development of a sustainable growing economy, as mentioned in further more detailed objects and topics; • explore the application of health services management in the world and Europe; • understand the structure of health systems in the context of a multicultural region, in order to see the contributions that they bring to the maintenance and improvement of the population's health state; • analyse the dynamics between the various components of the health systems in different regions; • understand the concept and dimensions of Health system performance; • explore national, organizational, provider, and patient interventions to improve the performance of health systems; • provide some guidelines to policy makers based on the lessons learned from the outcomes given by the different models and systems analysed within the context they were implemented in.

**Keywords:** *bio leadership, sustainable development, healthcare sector, pharmaceutical industry.*

The contemporary social and business environments are characterized by ongoing economic crisis and unsounded structural changes manoeuvred with austerity. Various sectors of activity make laboured effort to cope with internal causes and external forces during a long and difficult process to improve efficiency, competitiveness and profitability. As the entire economy the health sector requires sustainable complex growth in all fields of market and society, depending on macro indicators as they look at the moment. [Nature Reviews, vol. 11. p.3] [NHS Commissioning (2012) Developing the NHS Commissioning Board, p. 1-3]. The main line of reasoning resides in the complex the health care sector should play for all socio-economic, institutional, societal and political fields and operations. A reasonable good health is an indispensable requirement for the human welfare and has to be sustained

by economic and social development in order to be able to sustain the good systems health and support the humankind rights. The Articles 25 of the Universal Declaration of Human Rights states *“Everyone has the right to a standard of living adequate for the health and well-being of himself and of his family, including food, clothing, housing and medical care and necessary social services, and the right to security in the event of unemployment, sickness, disability, widowhood, old age or other lack of livelihood in circumstances beyond his control.”*

Despite the fact the European Union Area is positioning in the top regarding the care for health towards its citizens, there are still lots of differences to be amended at regional levels. Also will be important to understand the European health system role and position in attracting new people, creating new value through innovation of new treatments, investing in science and research, develop new therapies with high impact on the population.

Health systems' performance varies from one country to another, but the discrepancies factors are not known enough. The Governments, the keepers of the health care systems, are more focused on the public care while disregard the private one. The history of health systems is not a longer one, dating from the century 20<sup>th</sup> but its evolvable rate is much higher. Western Europe used to be at the forefront in founding national health systems to protect its workers [Department of Health <https://www.gov.uk/government/organisations/department-of-health>]. Such models were progressively externalised to other countries; therefore the present project is an attempt to better understand this transformation and to capture the present state of the art in order to predict the next state that will respond better to the needs of the patients today and tomorrow.

In Europe, Britain was the first in 1948 to set up a National Health Service (NHS) which kept its name until today, just after attempts made by Russia (1917) and New Zealand (1938) the same year when the Universal Declaration of Human Rights was finalised For that reason the British system will be one of the systems that will be the focus of this project as it set an international example [Chatora R, Tumusiime P Health Sector Reform and District *Health Systems*, Jan 2004; 13-40].

The UK healthcare system [Department of Health <https://www.gov.uk/government/organisations/department-of-health>] is in the hands of the British Government for England only, and under the responsibility of Scottish, Welsh and Northern Ireland Executives respectively due to their devolved administration systems, each has their own model of public-private funded healthcare. The general taxation is providing the funds to the UK citizens and offers access to a public healthcare, and for that reason offering also a good system for pooling risks.

At a glance, the Western European countries' health systems are highly structured, have efficient systems for taxation, strong regulatory framework and sufficient employees in their institutions within a fairly stable political or economical environment. In England, in April 2013 a new health and

care system became operational. Highly ambitious, its purpose relies in the Health and Social Care Act. At a national level: NHS England, Public Health England, the NHS Trust Development Authority and Health Education England will take on their full range of responsibilities [Department of Health <https://www.gov.uk/government/organisations/department-of-health>]

Medical care Management necessitates urgent modifications and originative implementations of a matching reform. This will come along with a collateral study of what happens on the Pharmaceutical market, there where the research and development activity remains the wellbeing bases for all nations. Nevertheless, the focus of this project remains the finding of the best answer to the question of what is the best for medical services delivery - through public or private providers and what the appropriate mix of financing mechanisms: government expenditure, out of pocket, or various types of insurance

The pharmaceutical industry is also confronted with challenges such as intellectual property protection, advancing candidate drugs to the next milestones, regulatory compliance. To maintain income despite underperforming research and development (R&D) portfolios, rounds of mergers and acquisitions have occurred such that only 11 of 42 members of PhRMA existing in 1988 now survive [Nature Reviews, vol. 11. p.3]. A first consequence of all this change resides in reordering of the top ten pharmaceutical companies as ranked by market capitalization, although eight of the top ten companies in 2001 were still in the top ten in 2011.

The pharmaceutical industry is currently facing the key challenges of declining R&D productivity, higher barriers to commercial success for innovative drugs and substantial imminent losses of revenue from successful products due to generic competition. Awareness of these challenges has catalysed — and continues to drive — considerable reorganizations in the R&D structures of large pharmaceutical companies.

Among the goals of such reorganizations has been the promotion of the type of entrepreneurial culture and behaviour that is considered to thrive in smaller biotechnology companies [Nature Reviews, Vol. 11, p. 5] in the hope that this will increase R&D productivity. Indeed, industry observers have attributed some of the present crises in the pharmaceutical industry to the discouragement of entrepreneurial behaviour by limitations inherent in the unwieldy bureaucracies that can proliferate in large pharmaceutical companies [Nature Reviews, vol. 11. p. 17-18]. Interestingly, an assessment of the value of small biotechnology companies was driven by the innovation and science in the one or two products moving through their pipelines [Nature Biotechnology Vol. 22, p. 1215 – 1217].

The role of middle managers — defined as those individuals in large pharmaceutical companies who are not at the executive level but who lead large groups or departments and have considerable responsibilities for the successful conduct of projects and programmes — emerged as an important

concern in the productivity of discovery units, even more so than in the case of development. One of the distinguishing characteristics of the biotechnology researchers refers to their closeness to science and their desire to retain the proximity [Nature Biotechnology Vol. 22, p. 1215 – 1217]. However, in other large pharmaceutical companies, excessive concern with milestones often detracts from the ability of research teams to remain close to science [Nature Reviews, vol. 11. p.3]. In the following five years, similar to the recent past, society will face dramatic changes, will witness a big loss in the market capitalization in the pharmaceutical sector because of the fact that the patent protection on today's blockbuster drugs will disappear and, with that, the big profits for the "Large Pharma" companies [Nature Reviews, vol. 11. p. 17-18]

Challenges can be found when trying to find treatments for more complex disorders such as cancer, obesity, mental disorders and others such as orphan conditions which are called rare and are mainly unknown for the health care professional and completely lack of treatment. [Nature Reviews, Vol. 11, p. 5] [NHS Commissioning (2012) Clinical Advisory Group for Prescribed Services Final Recommendations, p. 1-227] These conditions, not easy to understand and manage, require more consideration to avoid unimaginable consequences.

Innovation is apparently the key solution but it necessitates a favourable environment that can support the *take-off* of new ideas and their successful implementation, and will not destabilize or hinder the entrepreneurial energies [Nature Reviews, Vol. 9, p. 683-689]. Nowadays new challenges test the health and medical care sectors pressuring the need to adapt for better serving patient have needs, and diminishing the society costs burden.

Some of these new challenges are coming from the emerging markets with big needs of investment in their Health Care infrastructure. Considering this, the evolution of today society accentuates also the importance of ICT serving the health care but not as an outcome *per se*, but as a mean in improving the living conditions of society as a whole or for segments of society. The main objective in developing and implementing ICT products is to assure the increase of the quality of life and social development.

Another challenge is represented by the treatment of the specific conditions and the lack of appropriate management and public policies in the field. In the meanwhile we don't have to neglect that the evolution of nowadays society underlines the importance of information and communication technologies (ITC), not as a result *per se*, but as means of improvement of the living conditions which depend on both socio-economic aspects and the life style the man adopts. This is the reason why health related quality of life remains an indicator to take into consideration more and more within the set of measures regarding the efficiency in health care.

The nature of the diseases changed towards more complex and new conditions emerged and increased their incidence within a growing global population in such a way that what was rare before,

starts to be recognized more often and needs particular care and new innovative treatments. Present interest in the potential of translational medicine to find 'the right drug for the right patient' requires the integration of several activities. These include the search for biomarkers that not only help to select compounds at a preclinical stage, but also help to predict, stratify and monitor the patients and subgroups who will experience the requisite efficacy of the compound and an acceptable level of adverse events. To achieve this, collaboration between research and post marketing surveillance groups is also highly necessary. There is also a high need for a personal touch with the new model of customised medicine even for complex diseases like cancer. Ageing populations represent a new challenge for the society due to the age specific related conditions such as diabetes, hypertension, arthritis, dementia, and various form of cancer.

Establishing and maintaining an entrepreneurial culture during drug development is perhaps easier than during the research stage as the activities associated with this later phase are closer to product realization and clinical application. The inherent sense of urgency associated with the development stage is driven by the competitive environment, in which time to market with a differentiated product is an important determinant of success. Thus, the creation of special product teams for individual efforts and for therapeutic franchises, which are called by development and commercial leaders, is more likely to foster the entrepreneurial behaviours we have identified, such as ownership, outcome focus, passion and conviction, and the ability to recruit the best people. During the research stage, however, entrepreneurial behaviours are often compromised by several characteristics. These include:

- increasing size and complexity of any research groups;
- larger portfolios and a focus on increasing the number of 'shots on goal';
- focused middle managers on timelines and portfolios, instead of science, technology and leveraging external knowledge;
- influence on the commercial department (too early in the process);
- the evolving science and technology impact on organizational complexity;
- possibility of alignment between Head of R&D and CE.

As previously said, the aim of this project remains focused on studying the needs, expertise, resources and limitations of the different actors: pharmaceutical industry, hospitals, and patient associations, regulatory bodies in the Health & Medical Care sector, academia, and to offer a sustainable model of innovation, leadership and management that will better answer the needs of today's patient at the European level [Vasile, A., Mihoreanu, L., Bondrea, A., An Insight into the Rationality of Economic Entities: Emerging from Crises with New Approaches to Social Sciences, 6th EMRBI Conference Estoril, Portugal, 23-24.09.2013][Vicious, T.G., Mihoreanu, L., Groan, L. (2013) Contemporary "Homo Economics": Defining Wellbeing at the Crossroads of Economic Growth and Business Ethics, The 6th ERMBI Estoril, Portugal, 23-24.09.2013]. The major job is to take out some of the error from the trial-and-error process of drug discovery and management, so that the same level of expertise or resources



that big companies have at their disposal be put at a general disposal onto a large model/portal/platform. The model's aim will be to bridge the clinical needs to the scientific discoveries from the public domain or industry within a Public – Private partnership [J., Bessant, J. (2011) *Managing Innovation: Integrating Technological, Market and Organizational Change* (John Wiley & Sons, 4th Edition: London)]. The evaluation of the social impact of new technological configurations will also be based on a theoretical conceptual framework, gathering the Compendium of Approaches for Impact Assessment of ICT-for-Development Projects (ICT4D) of Heeks, Molla (2009) and Gigler's studies on evaluation framework based on the capability approach (2004) and on 'informational capabilities' (2011) perspectives.

The final research approach will be a multidisciplinary one, at the borderline between different diseases, adequate pharmacology, entrepreneurial methods implemented, managerial theories and practices and ITC methods all having multiple effects on the quality of life. Under such a frame the wealth will not be considered as an issue but the distribution of wealth is! This way, the innovative process will translate through science into new commercial drugs and make recommendations to policy makers focusing on the need to implement a sustainable model which will add value to the society by improving patients' health and most importantly their quality of life.

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## EFFECTS AND DETERMINANTS OF HOUSEHOLD DEBT IN PORTUGAL

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### ABSTRACT

As the amount of debt has gradually increased, particularly in recent years, Portugal is currently one of the European countries exhibiting one of the highest levels of overall indebtedness, including in both sovereign and private sectors. Indeed, this condition is the outcome of increasing levels of debt assumed not only by the government, but also by companies and families, being the later mostly due to mortgage loans and due charges. This paper focuses on the study of borrowing by Portuguese households. The research has been made in respect to the notion of debt, the consequences of recent developments in debt, among other factors. In order to analyze the factors that are most associated with debt, a study was developed using two multiple regression models, one using a longer time series and another shorter, evaluating the effect of several variables, such as consumption, savings, unemployment, inflation and interest rates, in order to check whether they could be associated with a higher level of debt.

**Keywords:** *Indebtedness Portuguese families, Multiple Regression Model*

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### INTRODUCTION

In less than twenty years, Portugal increased from a leverage ratio of just over 18% in 1990 to a rate of 130% of disposable income in 2007 (Frade, 2003). This was one of the highest increases in the rate of indebtedness of the European Union's countries. Although this data does not serve to indicate the risk of default of families allows, nevertheless, to show how the Portuguese were able to take advantage

during recent decades of favorable conditions associated with the opening of the credit market and the sharp decline in interest rates, the rising real incomes and improvements in the labor market that have led to a significant decline in the unemployment rate.

However, with the recent reversal of the economic cycle, the Portuguese population lives now difficult days and is faced with gloomy news about the state of the Portuguese economy; rising taxes, rising unemployment, cuts in subsidies, reductions in wages among other things, that the Portuguese people have to cope with. This situation is strongly associated with unbridled consumption experienced in recent years, which led to indebtedness of Portuguese Families. For many families the credit is a way to manage a short income budget, resulting in families that give use to credit cards and end up spending more than what they actually earn. It is for this reason that they have been living in standards far beyond their means. These factors have now led many families to renegotiate their loans leading many other to a situation of insolvency.

This status often creates a vicious cycle of debt since, after contracting a loan, families tend to have difficulties in settling this to respond before their financial commitments, so they tend to repeat the process, contracting new loans even leading to situations out of over-indebtedness (outstanding principal and interest value greater disposable income). The rapid accumulation of debt by households also justifies increased monitoring of their ability to repay loans. If the ability to continue to pay the debt on a regular and timely is particularly affected and a significant number of families fail to repay their loans, there may be consequences on financial stability in two main parts. On the one hand, on the financial situation of households own. On the other hand, from the point of view of the parties providing the credits. The current condition of the Portuguese financial sector portrays very well this consequence.

This study aims to determine the determinants and effects of borrowing by Portuguese Families. For such, several topics are researched, such as the concept of debt, debt indicators in Portugal, explanatory theories of debt, the factors influencing the debt will be studied; the effects of debt/debt in the economy, and finally analyzing whether the factors influencing the debt are negatively or positively associated. Household debt results from imbalances between receipts and expenditures of households, ie the result of mismanagement families with what you earn and what you can spend. However, debt is also related to loans that are granted to households, since we live in an era in which credits are made immense, often credits in order to pay other claims are also made. Thus, the problem of indebtedness arises when families can not meet their obligations.

## DEBT FRAMEWORK

According to OCR Macro (2001), it is argued that although there is no common European definition of indebtedness, this can be defined as the result of an imbalance between spending and consumer income, thus leading to a failure to make payment under a or more debts, ie when the level of debt is unsustainable. The debt has been the subject of several studies in recent decades. This has been understood as a multifaceted behavior, since it had the contribution of various disciplines such as psychology, economics, sociology and political science. Indeed, according to Lea, Webley and Levine (1993), contract or having debts is not only related to economic variables, since these authors were studied by social and psychological variables to justify the debt, such as social support debt, styles financial management, consumer behavior, among other variables.

For Friedman (1957), one of the bases of the indebtedness theories is the theory of permanent income. This theory explains consumer behavior in relation to consumption and the formation of expectations. This considers the permanent income as a proportion of income that people consider in the future and maintain transitional income as the deviation of current income relative to permanent. According to this author the permanent consumption is defined by consumption that is planned by individuals, the transitional consumption results of specific factors in life such as job loss. This theory argues that the consumption plan of individuals depends on their expectations regarding permanent income, having a key role in making financial decisions.

Authors such as Modigliani and Brumberg (1954) and Wärneryd (1989), argue that the theory of life cycle is another perspective to explain consumer behavior. This theory is based on two assumptions which are: "individual behavior is oriented to the future"; and individuals optimize their resources throughout life; when you are optimizing their resources lifelong, individuals are sensitive to changes in interest rates; this income is an indicator of what the future will yield. Thus, individuals are rational economic actors, ie individuals who trace their financial behavior for the future in order to maintain a pattern of stable life. Young individuals tend to borrow at midlife settle debts incurred in the initial phase of your life and start worrying about the savings, so use them in retirement to maintain a stable standard of living (Modigliani and Brumberg 1954).

There are several factors that, according to several authors, influence the debt (eg Raaij and Gianotten, 1990). According to Raaij and Gianotten (1990), the people with higher income spend and contract more loans and show a greater propensity to use credit cards. In the study by Boddington and Kemp (1999), they found that the sex of the individuals also influences the debt. These authors found that men have higher amounts of debt to women. To Godwin (1998), the household size is another factor that is related to the increase in debt. The marital status of individuals, according to Kinsey (1981), is also related to the debt, because the study was carried out by these authors concluded that when one

is married, spending on credit cards are higher. According Lea et al. (1995) when a household is composed of a greater number of children of this household debt is higher, thus the number of children is another factor influencing the debt.

The educational level is indicated as another factor, as referred by Canner and Lockett (1991), and Lea et al. (1993), that influences the debt. These authors argue that households with less schooling and households with a higher level of education tend to have more debt relative to income. Cameron and Golby (1990) argue that age is negatively correlated with the amount of debt held by households. The debt is related to the life cycle in which it is the aggregate, since the financial commitments usually increases with age, and older individuals are more likely to have higher than younger individuals debts. Another factor that is related to debt are the attitudes to credit cards, since individuals who have a favorable attitude to credit cards have a higher likelihood of having multiple cards, have a higher level of indebtedness and are more subject advertising (Chien and Devaney 2001; Davies and Lea 1995). Social class, according to Solomon, Bamossy and Askegaard (2002) influences the debt, because when the individual belongs to a higher social stratum, believes that it is more advantageous to use credit to purchase luxury goods than those who belong to middle class or casualties. Bird, Hagstrom, and Wild (1997), argue that the employment situation is also strongly linked to debt, since the employed people tend to have a greater number of debts of the unemployed.

#### Factors influencing on debt

**Braucher (2006), argues that excessive debt can be understood through two factors, cultural factors and structural, as can be seen in the following table.**

Structural factors	
1. <u>Credit supply</u> - Legal framework; - Promotion Techniques of credit risk management and credit available to credit institutions.	2. Seeking Credit -Insecurity of income / wage stagnation; -Reduced social protection in sickness, unemployment and disability;
Cultural factors	
3. <u>Affect supply</u> - Ideology of market liberalization; - Culture of indebtedness; - Marketing to the over-indebted; - Having as target the over-indebted; - Explore the minorities have been excluded from traditional banking.	4. <u>Affect demand</u> Culture-satisfaction of needs and desires; -Development of expectations regarding future income by individuals (media influence); -Debt is more accepted and considered normal; -Savings is becoming less common; -Cognitive biases (eg, optimism)

**Source: Adapted from Braucher (2006).**

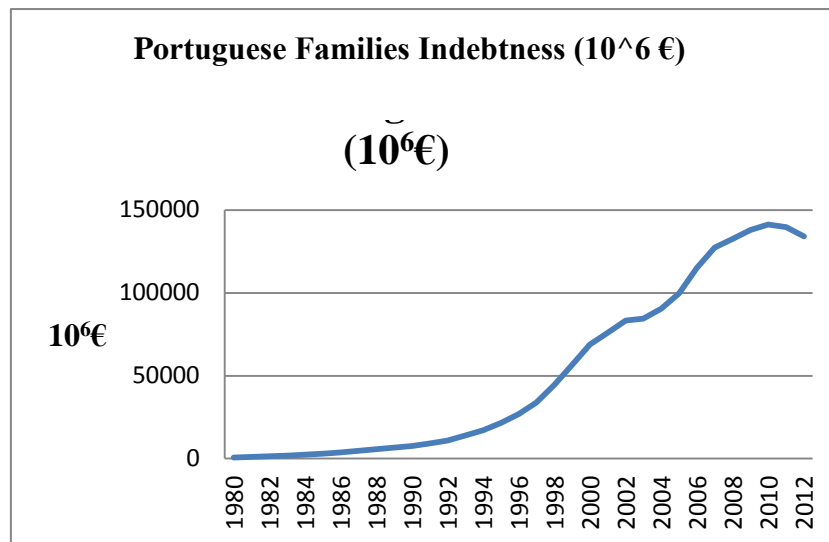
**Table 1 - Structural and Cultural Factors Influencing Over-indebtedness**

The large increase in debt by households, according to Worthington (2006), constitutes a threat to the welfare of this, which leads to a successive increase of the debt in default and many orders of insolvency or over-indebtedness, this has been more sense in Western societies. This is a situation that entails a greater number of consequences for the individual and undermines your budget or your household balance, which leads to strong implications for social and psychological level these individuals, leading to an increased level of financial stress Worthington (2006). Once the economic and social consequences of over-indebtedness are important is essential to analyze the trend of debt and proceed to study the nature and extent of over-indebtedness. In addition to the implications for society, one can not forget the problems that over-indebtedness leads to the real sector of the economy, because the increase in cases of families unable to meet their financial commitments affect levels of trust necessary for the normal functioning of credit market.

The study of over-indebtedness of households, can be done from two perspectives, namely the microeconomic and macroeconomic perspective (OEC 2002). Studies of microeconomic origin, household indebtedness, are very important at the present time, due to the high level share of this sector and the increase of the breaches. This work studies the individual data of concrete, broken households by socio-economic characteristics, with the aim of assessing the extent and nature of the cases. The use of macroeconomic aggregates using data to establish through empirical models, the relationship between the number of cases of over-indebtedness and the evolution of certain socio-economic variables may be regarded as a solid approach according to existing literature.

#### The portuguese Debt case

Over recent year, according to Faria and Noorali (2004), the indebtedness of Portuguese Families increased a dramatic pace. A value of about 20% of disposable income in 1990 to 40% in 1995, arriving in 2004 to reach a value of 118%. For Flour (2007), this large increase was predictable and can be understood as part of the catching-up process. During this period the sharp decline in the rates of nominal and real interest, the abolition of some legal barriers as well as the climate of increased competition between banks, provided access to credit to a broader set of households compared to the previous decade.



The large growth of household indebtedness, according to the Centre on Consumer Debt, CSG (2002), reflected the rational adjustment of families and alterations to credit institutions, both supply-side and demand-side credit. On the supply side, the liberalization and deregulation of the Portuguese financial system and the consequent increased competition in the credit market have led institutions to invest in the segment of loans to individuals with low levels of debt. On the demand side, changing cultural patterns, the decline in interest rates, the increase in disposable income and the containment of unemployment have also promoted the growing indebtedness of Portuguese Families.

Over the years the public debt of countries has increased in most advanced economies and this trend was accompanied by a dynamic GDP growth. In many countries, including Portugal, public debt increased, on average about 30% of GDP in the sixties to just over 60 % of GDP in the last decade (Rother and Westphal, 2012). As the debt increases is important to analyze the economic impact as well as the strategy to exit the crisis. For Reinhart and Rogoff (2010) the debt in peacetime can be considered more problematic for the future growth of an economy, since the debt tends to be persistent for long periods of time compared to the explosions of debt in times of war. These authors argue that the economic and financial crises are conducive to contribute to the accumulation of public debt. The financial and economic crisis that has come to feel since 2008 has placed considerable strains on the debt and in general on the public finances of the euro area countries. The ratio of the budget deficit in the euro area increased rapidly from 0.7 % of GDP in 2007 to 6 % of GDP in 2010, while the gross government debt rose from 66% to 85 % of GDP in the same period.

According Rother and Westphal 2012, the literature on the relationship between public debt and economic growth is scarce, but has gained great importance. However, the existing literature points to a negative link between the ratio of government debt to GDP and the growth rate of steady state GDP per capita. However, some endogenous growth models show that it may be possible there is a positive impact on the transition to the steady state, depending on the type of public goods financed with debt.



In the study by Reinhart and Rogoff (2010), where we analyzed the evolution of public debt and the rate of GDP growth over more than two centuries, they concluded that there is a long period for a weak relationship between public debt and growth debt/GDP below a threshold of 90 % of GDP and above this threshold, the ratios average growth rate falls by one percentage point.

## **VARIABLES THAT INFLUENCE THE INDEBTEDNESS**

The indebtedness of Portuguese Families can be influenced by several factors, as previously mentioned. However at this point the variables (or factors) that will be used in the case study, what more can influence household debt, and the following are presented: Income of Families Portuguese; Savings of Portuguese Families; household consumption; the unemployment rate; the inflation rate; the interest rate; GDP.

## **ANALYSIS MODELS DEBT**

### **Methodology**

Household debt has been a major obstacle in resolving the deep economic and social crisis that Portugal is going through. Given this situation it is intended, at this point, make a study on the indebtedness of Portuguese Families, ie analyze which determinants and effects of borrowing by Portuguese Families. For this one goes to use two statistical estimation models.

### **Samples and Models**

For this study will resort to an econometric model that has as dependent variable the "Indebtedness of Portuguese Families", a separate component, called the constant ( $\beta_0$ ) is not influenced by the different explanatory variables. This study consists of two models, the first model where observations total 33, while the second model consists of 10 observations. Statistical data are presented as a time series. The Model 1 consist of six independent variables as the disposable income, savings accounts, the private consumption the unemployment rate, the inflation rate and the interest rate. The Model 2 consists of four explanatory variables being the disposable income, the rate unemployment, the interest rate housing loans to GDP. In order to study, interpret and analyze the data contained in gretl software, a statistical model, the OLS model will be used. The main problem consists in estimating the model that is best suited to the characteristics of the subject in question, ie the "Indebtedness of Portuguese Families".

### **Hypotheses to be tested**

At this point we want to identify those factors that may influence the indebtedness of Portuguese Families, using the development of hypotheses. Thus, one can formulate the following research

hypotheses, for Model 1:

H1: The disposable income of individuals is positively associated with household debt.

H2: The savings is negatively associated with household debt.

H3: Private household consumption is positively associated with household debt.

H4: The unemployment rate is negatively associated with household debt.

H5: The inflation rate is positively associated with household debt.

H6: The interest rate is negatively associated with household debt.

*Regarding Model 2, we intend to test the following hypotheses:*

H1: The disposable income of individuals is positively associated with the indebtedness of Families.

H2: Interest rate housing loans is negatively associated with the indebtedness of Families.

H3: Unemployment rate is positively associated with the indebtedness of Families.

H4: The GDP is positively associated with the indebtedness of Families.

## Analysis and discussion of results

### *Univariate analysis*

Over the years the indebtedness of Portuguese Families, measured in this study through borrowings by them, has been increasing steadily and quite sharply since 1980. But it was from the year 1992 we noticed the most increase in debt. Regarding household consumption, this has also increased over the years he has had a more significant increase from the year 1989 with the value 28.3046 billion euros, though there was a decrease in the last two years under review. However, variables such as savings, the unemployment rate and inflation rate fluctuations have had quite a few over the years under study, and saving a larger peak in 2012 with € 14,452,500,000, the inflation rate in 1984 with 28 38% and the unemployment rate also in 2012 with 16.80% (as can be seen in the following table). Regarding the performance of individuals, these have gradually increased during most of the years under study, with a decrease in recent years.

Descriptive Statistics, using the observations 1980 - 2012				
	Average	Minimum	Maximum	Standard Deviation
End_	51626,3	26849,0	729,000	141210,
Rend__Disp_	46428,0	45368,4	4399,33	86694,4
Poup	7736,34	8305,30	1230,40	14452,5
cons	60768,6	60819,8	3145,21	114957
Tx_des	0,0728047	0,0669218	0,0401534	0,168058
Tx_inf	0,0814515	0,0422000	-0,00830000	0,283800
Tx_juro	0,0919697	0,0700000	0,000000	0,250000

*Table 2 - Descriptive statistics*

*Bivariate analysis*

By analyzing the correlation matrix it follows that the dependent variable is more correlated with saving, consumption and the interest rate, ie the increase of these variables is involved with the study variable. However, it also appears that the use is related to the interest rate and the rate of inflation and the inflation rate is related to the interest rate.

Correlation coefficients using all observations 1980 - 2012							
End_	Rend__Disp_	Poup	cons	Tx_des	Tx_inf	Tx_juro	
1	0,7678	0,8189	0,9465	0,6686	-0,7105	-0,8607	End_
	1	0,6346	0,7032	0,5997	-0,5662	-0,6304	Rend__Disp_
		1	0,9129	0,509	-0,8423	-0,8833	Poup
			1	0,5168	-0,8595	-0,9447	cons
				1	-0,2598	-0,3758	Tx_des
					1	0,9276	Tx_inf
						1	Tx_juro

Table 3 - Correlation matrix

*Multiple regression analysis*

Given the variable under study, the indebtedness of Portuguese Families of two multivariate analysis models were constructed to sustain the developed theoretical concepts and hypotheses as defined.

*Analysis of the estimated model (model 1)*

The estimation model that is presented below was estimated by the method of least squares (OLS). Thus, the following model was obtained:

$$\text{End}_- = -34230,8 + 0,193254 \text{ Rend\_Disp}_- - 3,52141 \text{ Poup} + 1,29804 \text{ Cons} + 349975 \text{ Tx\_des} + 236641 \text{ Tx\_inf} - 212104 \text{ Tx\_juro}$$

In the model obtained previously had a R-Squared (R<sup>2</sup>) of 0.974941, which means that the estimated model is satisfactory. As for the adjusted coefficient of determination, is a coefficient which discounts the effect of a large number of explanatory variables. Thus it can be seen that the model formulated is 0.969158. The formulated model can check the level of significance of each variable and its probative value. Thus, it appears that the significance level of 5% the income variables available and interest rate and constant are statistically significant and savings, consumption, unemployment rate and inflation rate variables are statistically significant and a significance level of 1%. Finalmente, o modelo respeita as hipóteses clássicas do modelo de regressão múltipla, nomeadamente homocedasticidade, ausência de autocorrelação dos erros e distribuição normal dos resíduos.

### Analysis of the estimated model (model 2)

As previously stated this model was constructed over a shorter range (10 observations). Thus were obtained the following format:

$$End_{-} = -182581 + 0,365418 Rend_{-} - 190487 Tx-Juro_{habi} + 136961 Tx_{des} + 1,63188 PIB$$

In the model obtained previously made an R2 of 0.990384, which means that the estimated model is satisfactory, it is 0.982691 also high. In the model formulated it turns out that the significance level of 1% is it constant and a significance level of 10% the variables unemployment rate and GDP. What demonstrates that these variables may not be sufficient to explain the dependent variable.

*Finally, the model satisfies the classical assumptions of multiple regression including homoscedasticity, no autocorrelation of errors and a normal distribution of residuals model.*

### Discussion of results

At this point of the thesis are made comparisons between the results obtained and the expected results. In Table 4 it can be seen that the results obtained for each of the study variables and the expected results for Model 1.

Variables	Expected Results	Obtained Results	Significance
Income	+	+	95%
Savings	+	-	99%
Consumption	+	+	99%
Unemployment rate	-	+	99%
Inflation Rate	+	+	99%
Interest Rate	-	-	95%

*Table 4 - Comparison of results (Model 1)*

It also appears that the variables household savings and unemployment have not had the results the same as expected. Regarding savings, theories pointed to a positive association with the debt, but this has not turned out so the savings are negatively associated with debt, ie the more the savings increase more debt decreases. Regarding the unemployment rate, this was also not the result we expected, since the theories suggested a negative association towards the debt and turned out to be a positive association, ie the higher the unemployment rate, indebtedness. For the remaining variables (income, consumption, inflation rate and interest rate), it was found that the result was equal to the expected outcome variable interest rate is negatively associated to debt, so its increase results in a decreased in debt. Variable yield, consumption and inflation are positively associated, since the increase these variables leads to an increase of the variable debt households.

The following table (Table 5) relating to Model 2, it can be seen that only the variable rate of unemployment had a result different from the result expected. The income variable interest rate

housing loans to GDP submitted a result equal to the expected result.

Variables	Expected Results	Results Obtained	Significancia
Income	-	+	
Unemployment rate	-	+	90%
Interest rate for housing loans	-	-	
GDP	+	+	90%

*Table 5 - Comparison of Results (Model 2)*

It was also found that the variables income and GDP are associated with the indebtedness of families in a positive way, so that the increase of these variables leads to an increase in household debt dependent variable. Only the variable interest rate housing loans had a negative towards the debt variable, so the increase in this variable leads to a decrease in debt variable association. When making a comparison between the two models (model 1 and modelo2), one can conclude that the variables that both models had in common even reached the results, we conclude also that both variables were not meeting with expected, but the results are better specified variables in Model 1 since they have greater statistical significance. Thus, it appears that to study the indebtedness of Portuguese Families, in this particular case is better than model 1 model 2 because model 1 is best explained and model 2 is not sufficient to analyze a fact so important to worldwide.

## CONCLUSIONS

This study's main objective was to determine what the determinants and effects of borrowing by Portuguese Families, since this topic is fairly current and only now has given a greater importance by modern literature on debt. To enable it to meet this objective, we carried out a research study, using firstly existing literature on the debt. Portugal has a large debt level, which was progressing very rapidly over the years, so its rate evolved much since the 90s to the present day, which meant that the risk of debt also increased sharply.

The debt can be defined as a result of an imbalance between spending and income of the consumer, in this particular case of Portuguese Families is also associated with loan commitments, most commonly mortgage and consumer debt, being mortgage loans the main source of debt. This can have a negative effect on the economy, since the increase in debt may cause a long term decrease in the growth rate of a country's economy, as families are indebted and do not have as much capacity to consume, having to pay debt interests and fess, which may result the country economy to fall into recession.

There are several factors that can lead to debt. In the examination made in this paper, referring to model 1 these factors include disposable income, savings, consumption, unemployment rate, inflation rate and interest rate. As for Model 2, the variables examined were disposable income, the interest rate of loans to housing, unemployment and GDP. While making this study it was concluded that all variables used could bring significance to the model, ie, they are all important when studying the debt

because they gave predictive explanation power to the model. Regarding Model 2 only two variables, the unemployment rate and GDP, have some significance to the model, but it is not enough to demonstrate that the chosen variables in Model 2 are satisfactory when analyzing household debt.

After obtaining the results of the regression model one can conclude that there was an association between the independent variables and the dependent variables. We also found that most of the results were against the expected results, namely the variables income, consumption, unemployment, inflation and interest rate. As in the model with 2 variables yield, interest rate housing loans to GDP. Thus it is concluded that the study variables in Model 1 are determinants of debt, which was not observed in model 2, and that the income variables available, private consumption, unemployment and inflation are positively associated with debt that is, an increase these variables results in an increase in the debt variable. As the savings and interest rate variables are negatively associated to debt, so when there is an increase in these variables the debt decreases.

It can also be noted that for the purpose of this paper, ie to analyze the determinants and effects of household debt in Portugal, the model 1 is the most powerful, since the variables associated with the model have more statistical significance, being therefore concluded that that this model was better specified.

When comparing the results obtained with the expected results, it can be concluded that four of the variables were against the expected result, as the variable interest rate presented a negative association with respect to debt and equities, while consumption and inflation exhibit a positive association with respect to the indebtedness of Portuguese Families. The other variables, such as the savings and unemployment, had also a model result opposite to the expected result.

It is important to note that increasing debt is a hot topic, this is due to the phase of crisis that Portugal, and other developed economies, are going through, so it continues to be important to develop studies on it such as to research other possible effects on the economy caused by indebtedness by other than households, such as by corporations, and the financial sector.

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## LAST MARKETING COMMUNICATION CHALLENGES IN LUXURY BRAND MARKETS: A COMPARATIVE ANALYSIS

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### ABSTRACT

Marketing communication strategies, together with instruments and actors involved in their planning process, need to confront themselves on the one hand with the evolution of technology and the other with the transformation of consumer behavior.

This research project assumes that companies should change their strategic action, if they want to communicate with their changing target. What happens in luxury mature markets?

The intent is to empirically examine how luxury companies communication strategies evolve towards a stronger relationship with the audience. This involves a continuous interaction and sharing of content and values in terms of enhancement (luxury brands value enhancement through exclusive content, so as to enhance the consumer experience), expression (strategic action for a more effective communication, in order to reach considered markets goals) and empathy (ability to establish a relationship with the customer can be more intimate). Eventually, it is stressed that, in the present context, the players who have the most authority and esteem are the ones that have a higher number of impressions on social networks and a higher frequency of video views and shares content online.

**Keywords:** *Integrated marketing communication, user generated content (UGC), luxury goods, mature markets, social networks, reputation, innovation, consumer behaviour, brand experience, engagement.*

### INTRODUCTION

Media continuous evolution has led to the consequent approach between business and target audience even in those markets where, traditionally, the business-consumer has always been top-down (Schultz, DE, 1992). In which way the technological progress is lived and declined in communication from luxury companies in mature markets?

Given that consumption is essentially a communication system that is expressed through a multitude of languages, the greater the stratification of a society, the more languages will be spoken and will be much more complex to analyse consumption dynamics. This is especially true for luxury goods (Chevalier, Mazzalovo, 2012), in a context where the use of communication is experiencing a transition



from “linear to multi device” (Mattiacci, 2012). The “future” of the luxury communication will be the result of a number of macro trends, some of which are already on the market, able of influencing the system of consumption both in general and in the specific context of the high quality products markets. In addition, if it is true that the traditional marketing mix variables are declined in a particular way within the luxury markets, it is necessary to wonder what is appropriate to share and communicate with the target audience manifesting a growing interaction propensity.

The main aim of the present research has some starting point. First of all, worldwide firms, nowadays, look ahead to the integrated communication tools as the most strategic way to improve their assets and business, especially over discontinuities (Casalegno et al., 2012). Secondly, managers have to consider that building a strong brand communication structure could be valid for all the stakeholders as extended audience (Kliatchko, 2008), since communication is not a *two-way* factor (Grunig, 2001) anymore. The present research has therefore a threefold goal: it wants to investigate how luxury brand communication has been evolved in the latest years, it focus the attention on the analysis of social and viral marketing new trends, it suggests a new application model in order to better manage new communication tools available in this multidirectional communication era, considering that the integration among various communication tools is nowadays the condition through which a firm can protect the core of its intangible competitive advantage.

## **THE CHANGE OF LUXURY GOODS COMMUNICATION AS STRATEGIC LEVER FOR A WIDER AWARENESS.**

While the power of mass media is undergoing a decline, due above all to generation Y media attitudes, there is a growing interest in new media generated by the consumers themselves, or the so-called user-generated content (UGC): blogging, podcasting, online video (eg : Youtube, Vimeo), social networking (Facebook, Twitter, Printrest, Google plus). Internet is getting the real “backbone of the media system” (CENSIS, 2012). The trend sees all organizations dealing with the programming of a communication plan that integrates all the tools with which they intend to interface with their stakeholders (Schultz, Tannenbaum, Lauterborn, 1993; Romano, 1988; Krugman et al., 1994; Collesei, 2002; Duncan, Mulhern, 2004; Aiello, Donvito, 2005; Collesei, Ravà, 2008; Belch, Belch, 1998, 2009). Companies don’t just have to be present on the web through “websites showcases,” but also they need to become the real protagonists in the process of information and experience creation and exchange, providing to users and brand followers dedicated spaces, content and additional services. The concept of integrated marketing communication - strictly related to the integrated firm communication (Romoli Venturi, Casalegno, De Palma, 2014) - becomes inseparable from the one concerning common values sharing with stakeholders: people talk about social values of corporate social responsibility, which assumes an

attitude of protection of the environment (geographical, economic and social) on which the organization (firm, when for profit) intends to develop its strategic action. Porter and Kramer refer to the concept of social innovation (2011): they see in the sharing of values between the business community and the organization main key to competitive advantage. The above macro trends are to consider in addition to already well-established factors, such as: the '90s West economic development, which led to a consolidation of high value product markets, traditionally recession proof; the opportunities arising from the internationalization and expansion which gave way to luxury brands to approach with success new markets; the emergence of the internet and social web related phenomena. In this context, consumers in mature markets have been characterized by a series of changes that led to contradictions and paradoxes. It is thus possible to consider three macro trends that will contribute to a substantial change in consumption related to competitive environments considered (Corbellini, Saviolo, 2007). The first is the search of experience and personal gratification. The decade in which we live (2010-2020) is characterized by the centrality of the experience (Mosca, Casalegno, Feffin, 2013). The focus is no longer on "what", but on "how" people buy things. Therefore, Kotler (2006, 2009) third "P" - distribution - is becoming increasingly important in major luxury markets strategies and the point of sale becomes the final touch point in the integrated communication process. Here the consumer can impart, through tangible and intangible elements, the image of the brand itself (Mosca, 2011). The second is the technology pervasiveness. Nowadays, it is evident the overwhelming role technology has had on the purchase and use of goods scenario. In fact, thanks to advances in innovation, final consumers have changed their behaviour and role in the purchase, from passive to active users, expressing the desire to produce content and participate to products and services development of what they are "invited" to consume (Mosca, Casalegno, Feffin, 2013). The information technology increasing development (Rifkin, 2000) and the continuous compression of products life cycle reinforce new consumption mechanisms will be focused not in the possession of the product, but in wealth and consumption experiences sharing. Eventually, the third is named iper-mediation (Corbellini, Saviolo, 2007). The social stratification, in fact, has always been the basis of the luxury and fashion goods consumption in a ostentatious logic, this logic has always been related to show the others. To these motivation, that could be defined "historical", in recent years it is to add others consider luxury consumptions to satisfy personal needs, well defined as "self realization" needs (Mosca, 2011). The contemporary presence of these two different consumption logics have taken to the birth of some bubbles demand (Brondoni, 2007), they are paradoxes, new buying behaviours. In recent years researchers and managers can find that various consumption forms are living together: from the more traditional buying behaviours (well described in the Conspicuous Consumptions Veblen Model), to the birth of the connaisseurs, ecc (Corbellini, Saviolo, 2007). This is due to the on-going changes related to

purchasing schemes used by a customer defined (Okonkwo, 2010) as smart, well informed, always looking for brand new experiences and relationships. He/she is powerful, influent, individualist, but at the same time he/she looks for constant connections with the community.

## **THE LOC MODEL: A NEW SUGGESTION FOR A BETTER LUXURY COMMUNICATION.**

In a new scenario where web experience is based on the exchange, sharing and collaboration, the luxury consumers are certainly not been immune to this revolution (Atwal, Alisair, 2009). In fact, especially in this particular competitive environment, consumers are looking for a deep and intimate relationship with brands (already suggested time ago by Roberts, 2005) that emphasize the recognition, respect, dialogue and collaboration with their costumers. On the other hand, costumers tend to reject those brands that do not recognize them the involvement and attention they require. In this scenario dominated by a stronger relationship between people and technology, communication and web, the luxury goods marketing requires new communication model based on 7E (4E +3E): Experience, Exclusivity, Engagement and Emotion (already perceptible in Okonkwo articles, for example), in addition to other 3E risen from the opportunities that the web, and in particular the social web, have brought in communication: Expression, Enhancement and Empathy (Mosca, Casalegno, Feffin, 2013).

*Experience.* During the recession and post-recession, unlike other markets, the traditional consumer of luxury does not have significantly limited their consumption. While the luxury market and the spending on luxury goods has grown, on the other side luxury consumers have become more selective, informed and a little bit cynical. Today, the purchase decisions of luxury consumers revolves around the question: " Is it worth it ?". In this scenario, the luxury companies had to provide a unique and compelling/engaging experience (Okonkwo, 2005). Some authors have observed how the next decade will be characterized by the centrality of the experience. An example of this trend is offered by the luxury maison Burberry in the opening of his flagship store in London on September 14, 2012 in the heart of London. The flagship store, thanks to technology developed by the brand, is designed in order to increase customer's engagement (and purchases) through in-store digital and tactile experience that shows the historical and artistic heritage of the brand. It was developed as the physical expression of Burberry.com, in fact rooms in the flagship store follow the sections of the website available online, diving costumers in a digital and physical combined experience. In conclusion, the strategy put in place by Burberry not only allows costumer to increase the perceived value of the brand improving their shopping experience, but allows to increase the permanence, in terms of the time spent in the store, creating desire to return and repeat the experience.

*Exclusivity.* In marketing exclusivity is considered as arising from the second P of marketing mix: the price. The exclusivity, however, has always been the cornerstone of luxury's strategies and no appearance has never been more intensely protected. It is widely believed that the use of the digital marketing's levers in luxury strategies could "put in jeopardy the exclusivity of the brand," but, on the contrary, they offer a real opportunity and an elegant way to control and develop such exclusivity increasing at the same time the visibility of the brands. As a result, the players of the luxury market have created exclusive platforms for consumers, as for instance the community. This expedient has been used, for example, by Burberry for its *Art of Trench*. Each maison, in fact, has a special icon which distinguishes one from another. For Burberry this icon is trench coat. For his symbol garment, it has been created a real fashion social network that collects shoots of characters, famous and not, who wear the icon of the company.

*Engagement.* Engagement in the luxury goods is granted and often evoked by one thing: the story. Any video, online experience or a simple post on Facebook, which is equipped with an engaging content, constitutes a story that arouses emotions and involves the viewer in a unique experience. Today, in the luxury markets, convince the consumer to buy is not sufficient. Convince them, however, to participate at an exclusive trip with and within the brand is the key to success and that is what stories make. Tiffany, for example, reported a significant increase in sales, after that the public and the press greeted with enthusiasm the microsite developed by the brand: *What Makes Love True* and mobile application *Engagement Ring Finder*; the two elements of digital marketing that conveyed the powerful and engaging history of the brand Tiffany in achieving the true love. Tiffany has decided not to focus only on selling products, but on an entire way of life.

*Emotion.* The combination of the three variables previously described, give life to the fourth element of the luxury marketing: emotion. Without the proper application of this key variable, the success of luxury brands is not sustainable in the long run. The reason is simple. The luxury firms have to do with a consumer that can buy almost anything he/she wants. In this context, the physical product acquires secondary importance in favor of what luxury consumers are really looking for: a more personal experience or an engaging story that will inspire in them a particular emotion.

*Enhancement:* enrichment of the content of luxury through exclusive content, that could be shared, in order to increase the consumer experience.

*Expression:* internet gives the chance to manage the communication time and spaces. This has given way to a communication that is more charming, elegant and dream-like, able to reach a specific target market which until now was not possible with the only above the line media.

*Empathy:* new UCG media are able to give to luxury firms personal information about customers and allowing companies to establish a more intimate relationship with the customer, that is in line with the

inversion of the traditional scheme communication that has influenced the current scenario in almost all markets.

The LOC model has been tested previously (Mosca, Casalegno Feffin, 2013) on a sample of about 600 people, for most part of generation Y and all within what are called mature markets. In this present study, the objective will be to test, in particular, the last model 3E that refer to more interaction with the target audience.

## **WEB 2.0 STRATEGIES IN LUXURY MARKETS: A COMPARATIVE ANALYSIS.**

In order to better define development trends in luxury markets communication strategy, the case analysis methods have been considered to underline, when possible, different and similar firms' media attitudes. The analysis has been based on ways through which global luxury goods firms integrate their communication tools each other, by focusing the attention on web and social strategies. To do that, the comparative analysis of thirty international cases – chosen to represent in an equal way different luxury brands markets - allows to estimate not just the on line presence, but even the contents different players post in order to share with the online audience. The surveys of the major social platforms (Facebook, Twitter, LinkedIn, YouTube) have been carried out at two different times. A first survey was carried out on a daily basis from April 14th 2013 to May 14th 2013, while a second survey was carried out after 10 months (March 14th, 2014). Were examined just such periods of time as it does not fluctuate - media and sales volumes – due to seasonal origin (eg: Christmas, Valentine's Day, Easter). The intent was to understand how the luxury markets players are approaching their use of social media tools in the field of wide consume and, more importantly, what kind of reaction from the audience these media strategies generate.

## **RESULTS ANALYSIS AND FINDINGS**

The analysis allowed estimating the "web activity" of the thirty firms operating in the luxury markets, not only in quantity (number of like, followers and share), but also in terms of quality on the basis of the content published on line by the same businesses.

The interpenetration of the two surveys also allows to study the evolution underway in the new media, as far as the luxury sector as a whole, and to propose a hypothesis for management to optimize communication online.

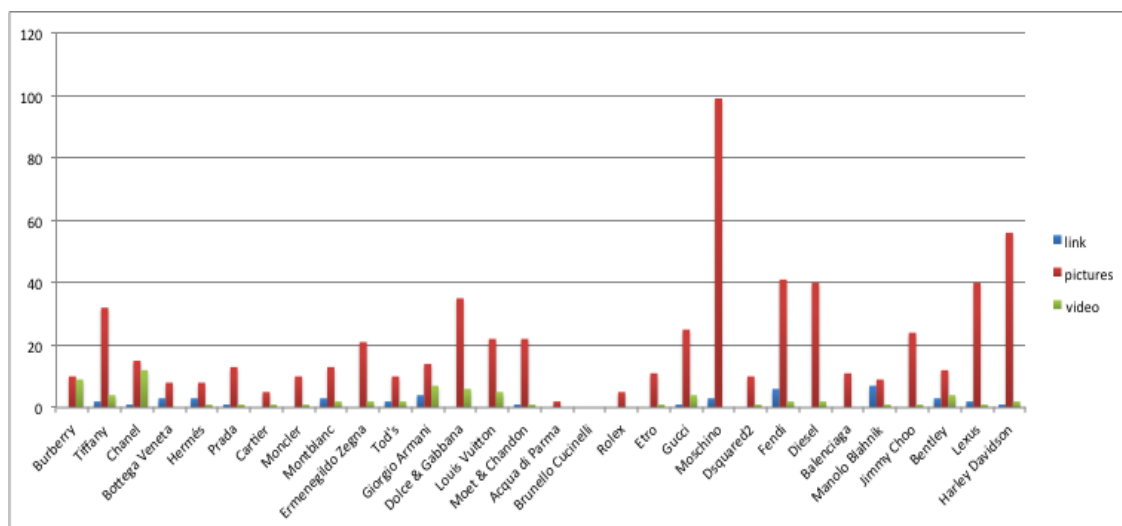
Table 11. *The online presence of luxury (information updated in March 2014)*

	FACEBOOK	TWITTER	LINKEDIN	YOUTUBE	WEBSITE	PRINCIPAL AIM
<b>BURBERRY</b>	X	X	X	X	Boutique online	e My Burberry
<b>TIFFANY</b>	X	X	X	X	Collections	and Tiffany world
<b>CHANEL</b>	X	X	X	X	Collections	and Chanel news
<b>BOTTEGA VENETA</b>	X	X	X	X	Online catalogues	boutique e
<b>HERMES</b>	X	X (from the early 2014)		X	Collections shop	and online
<b>PRADA</b>	X	X	X	X	Collections shop	and online
<b>CARTIER</b>	X	X (from November 2013)	X	X	Catalogue	and My Cartier
<b>MONCLER</b>	X	X	X	X	Collections, special projects	news and
<b>MONTBLANC</b>	X	X	X	X	Collections	and My Montblanc
<b>ERMEGILDO ZEGNA</b>	X	X	X	X	Collections shop	and online
<b>TOD'S</b>	X		X	X	Catalogue	and blogger
<b>GIORGIO ARMANI</b>	X	X	X	X	Collections	and My Armani
<b>DOLCE E GABBANA</b>	X	X	X	X	Online store	and Swide Magazine
<b>LOUIS VUITTON</b>	X	X	X	X	Collections	and My Louis Vuitton
<b>MOËT E CHANDON</b>	X	X	X	X	News	and Moët brings you
<b>ACQUA DI PARMA</b>	X	X (from the early 2014)		X	Products	and news
<b>BRUNELLO CUCINELLI</b>	X	X (from the early 2014)	X		Online catalogue	
<b>ROLEX</b>	X		X	X	Online collections	
<b>ETRO</b>	X	X	X	X	Alfabetro	The Magazine
<b>GUCCI</b>	X	X	X	X	Online collections	and catalogue
<b>MOSCHINO</b>	X	X	X	X	Online collections	and boutiques
<b>DSQUARED2</b>	X		X	X	Online shop	and collections
<b>FENDI</b>	X	X (from September 2014)	X	X	Online collections	and special contents
<b>DIESEL</b>	X	X	X	X	Online collections	shop and
<b>BALENCIAGA</b>	X	X	X	X	Online collections	
<b>MANOLO BLAHNIK</b>	X	X	X		Collections	and news
<b>JIMMY CHOO (London)</b>	X	X	X	X	Collections	

<b>BENTLEY</b>	X	X	X	X	Models and <i>Bentley world</i>
<b>LEXUS</b>	X	X	X	X	Online catalogues
<b>HARLEY DAVIDSON</b>	X	X	X	X	Models and online community

Table 1 shows that over the years luxury firms have gradually developed a direct presence in the online media landscape, following the path already traced by the most advanced companies in the consumer products. Most companies have a Facebook page and is present through its own channel on YouTube. Concerning online contents and the typology of what posted by luxury firms, the daily report (April 2013-May 2013) has shown what follows in figure 1 and in figure 2.

*Figure 1. The luxury firms online contents (daily monitoring 14th of April 2013- 14th of May 2013, considering the major social networks).*



*Figure 2 – Online contents purpose (daily monitoring 14th of April 2013- 14th of May 2013, considering the major social networks).*

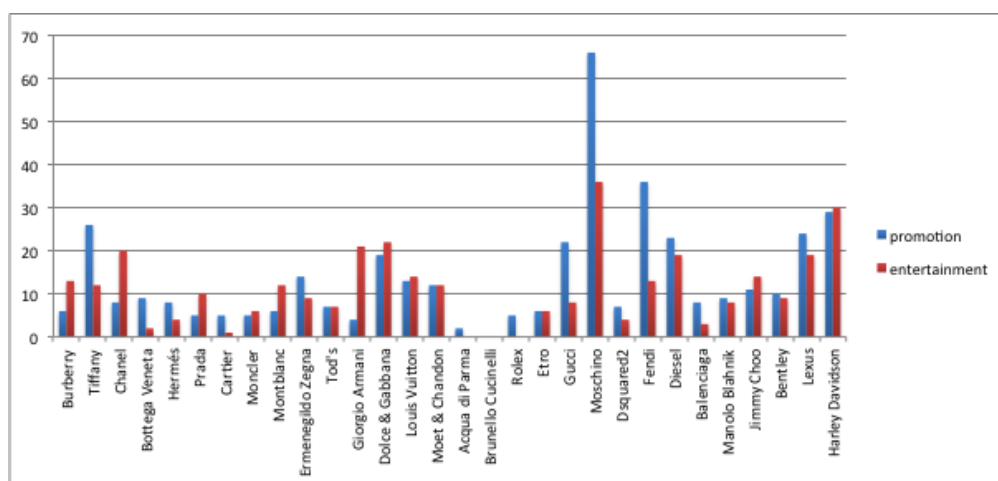


Figure 3 shows the awareness linked to new online media in terms of likes / shares and followers. This first analysis of social media use doesn't consider the use of LinkedIn due to its scarce use by luxury firms; is to underline this democratic social media use. Figure 4 also highlights (taking into account the top 10 companies analysed in terms of online visibility) as the firms use the YouTube channel to manage their communication. Such use of the web, in fact, allows companies to disseminate films that have a duration that gives the chance to build the idea of "dream" and the dreamlike landscape typical of the communication of the luxury brand. The data relating to other social media are to be considered: comparing the number of brands like Chanel with the one related to one of the most famous brand in the consumer market, such as Benetton, it turns out that that the number of like and share the first is twice that of the second. The above is as relevant as ever, taking into account the shortest time from brands like Chanel have developed their own online presence

Figure 3. The UCG success in luxury markets". (Monitoring of May 2013, compared with March 2014).

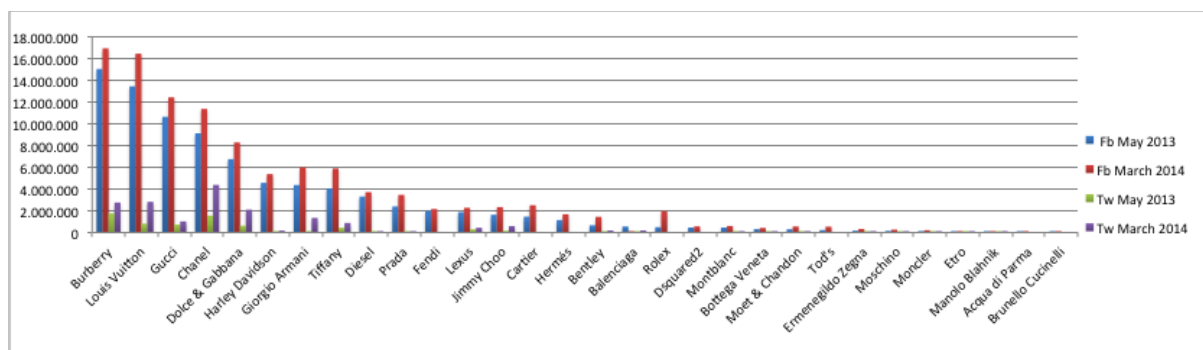
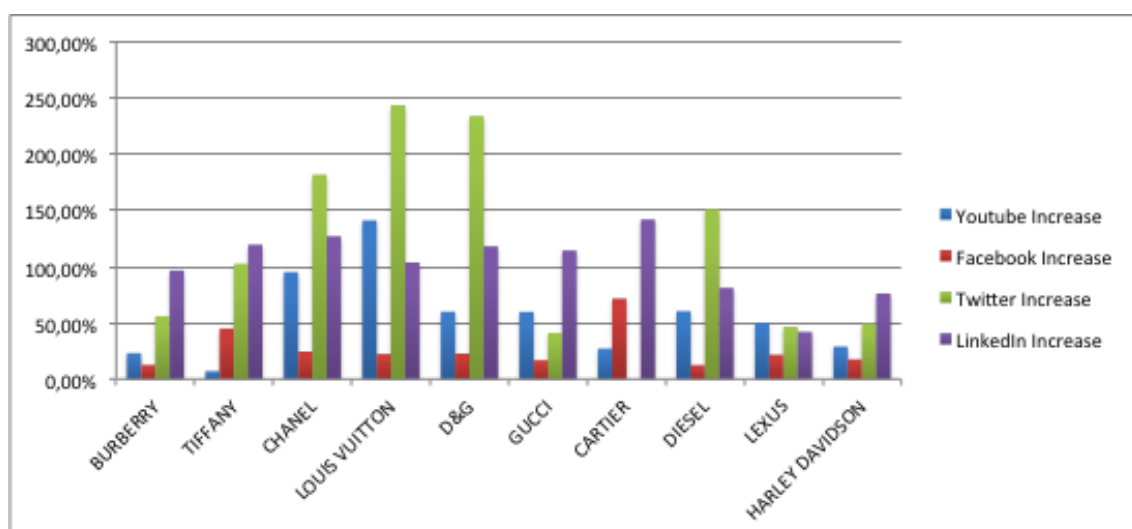


Figure 4. The top 10 luxury firms in terms of visibility" (Monitoring of May 2013, compared with March 2014).



Considering the different increases of visibility, the research has focused the attention on the possible correlation between the Facebook likes and Twitter followers, the one concerning Facebook likes and



LinkedIn followers, the one concerning YouTube official channel visualisations and Facebook likes and the one concerning the increase of Twitter followers and YouTube visualisations. The used formula has been the Pearson-Bravais correlation index:

$$C(x,y) = \frac{(x - \bar{x})(y - \bar{y})}{\sqrt{(x - \bar{x})^2} \sqrt{(y - \bar{y})^2}} \cdot \frac{1}{n-1}$$

In which:  $C(x;y)$  is the correlation to test;  $x$  is the augment of Twitter, LinkedIn and YouTube followers/visualizations;  $y$  is how much can augment the number of Facebook likes. Despite is not possible to say that the used sample can be statistically relevant - because of the scarce number of analysed players - the results can be interesting for an early stage research, because empirically show what is possible to reach by simply using the qualitative knowledge of social media use. Results show that the correlation doesn't exists between Facebook and Twitter (in this case the correlation is  $C(x;y) = -0,011$ ), nor between Facebook and LinkedIn ( $C(x;y) = -0,011$ ), while between YouTube and Facebook is negative ( $C(x;y) = -0,3$ ). If we consider the augment of Twitter followers ( $= x$ ) and the increase of YouTube visualizations ( $= y$ ), is possible to underline a correlation between the two factors ( $C(x;y) = 0,69$ ).

## MANAGERIAL IMPLICATIONS AND RESEARCH LIMITS.

Whereas, therefore, the web experience is based on the exchange, sharing and collaboration, consumers of luxury in mature markets are certainly not been immune to this revolution. Instead, they need to share their passion for luxury brands with other users on the network and trust you more and more of the opinions of the latter "acquaintances unknown" within the forum or blog. This is what literature sustains (Okonkwo, 2009): since the luxury is an identity, a concept – rather than a good or a service – luxury firms have to face the internet challenge if they want to lever on the emotion and they want to share their philosophy and their emotional values (Okonkwo, 2009) strictly tied to the brand. The existing literature (Campbell, Pitt, Parent, Berthon, 2011) can help managers in understanding that even in these particular markets it is possible to use democratic tools like internet and social medias, in order to improve values sharing and audience commitment, but little has been written concerning the concept of polarization of consumer behaviour. This should be considered especially in the areas of luxury, as it allows management to assess the intake of new strategic levers able to lead to the creation of a stable long-term relationship with their target. The results of this research can serve as a framework for all organizations wishing to compete in the luxury good markets. It considers that, especially in this particular competitive environment, consumers are looking for a deep and intimate relationship with brands that emphasize recognition, respect, dialogue and collaboration. On the

contrary, they tend to reject those brands that do not damage their involvement and attention they require. In addition, they tend to abandon those businesses that are not able to convey experiences, values, and, above all, excellent product concepts consistent between the real world and the online environment. In this perspective, the integrated communication takes on an increasing importance in the management of luxury brands.

Moreover, from the integrated marketing communication perspective, luxury markets players have to apply the same logic, but not with the same contents, of the consumer goods ones in the use of media tools. The approach to integration between old and new media is a duty. The integration between old and new media, together with the distribution systems, is strategic on one hand to renovate a luxury brand and transfer to the consumer the sense of modernity and innovation of the brand and, on the other, to build long lasting and strong relationships based on trust, able to provide customer loyalty in a second time.

Generation Y is more prone to web and social communication (CENSIS, 2013) and, more in general, young people used, nowadays, to spend most of their time online represent that part of the population between 15 to 20 years will be able to be a part of the demand for luxury. Even nowadays young people with money to spend are a significant test target for luxury player if we consider that this target is global, strongly attracted and influenced by luxury brands, innovative and it has an occasional access to the consumption of luxury goods.

The research presents some limits that can be turned in further steps. The biggest is that it is necessary to test luxury global users perception, whereas in mature markets perceptions and media habits may differ from those in other geographic markets. The use of a survey through which you are unable to test a sample of the world population, which well represents the universe to be tested, will be the next step of the research. This will take to reach media habits segmentation, distinguished by geographic area, can be a useful tool for managers of luxury companies.

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## “CONSUMER BEHAVIOR IN CHOICE OF FOOD AND BRANDING”

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### ABSTRACT

**Purpose:** To understand the conceptual link to consumer food choice behavior and learn on how to add to customer value through branding is proposed.

**Methodology:** Through a literature review the paper distinguishes the concepts relevant to consumer behavior and branding. The effects of these concepts while analyzing: consumer behavior in general and their food consumption behavior are discussed drawn from studying various research implications.

**Findings/Practical value:** A number of research studies signifying the influence of the interplay of diverse fields on the consumer behavior in the choice of food and in adding to customer value through branding were identified. The outcomes of these research studies should be of interest to behavioral researchers trying to analyze food consumption behavior among individuals.

**Keywords:** *Consumer behavior, interdisciplinary, diversity, consumer decision making process, brand equity, food conception value, customer value, consumer evaluation of food, branding strategy.*

### INTRODUCTION

All marketing activities are evolved around the ‘consumer’, the key contributor to the growth of the organization. Consumer behavior calls for the study of human responses to the products, services and the marketing mix elements. Food is one of the basic needs of human beings, a source of nutrition for the body, serving a social and cultural function whose consumption has hedonic value. Trying to understand food consumption behavior is highly complex and very challenging because of the diverse influences of a wide range of science and social science disciplines. Over the past many decades there have been tremendous changes occurring in the pattern of consumers’ food choice behavior, visible in the way they go about food shopping and seeking eatery options. This has resulted in organizations opting for modifications in food production, processing and distribution.

In the context of globalization today, we have tried to examine studies involving food choice among consumers from different places. The purpose of this paper is through analysis of various studies develop a framework of food choice behavior and further evaluate the extent to which branding can

influence choice of food. The structure of the paper is as follows. The paper commences with a brief discussion on the terms 'Consumer Behavior' and 'Food Choice' and then an over-view of few studies will help to identify factors affecting food choice. We will then examine certain studies involving influences on food choice behavior and through discussions try to ascertain whether branding can influence food choice among consumers. Towards the end of the paper we have attempted a framework that will show the link between factors influencing food choice and branding.

In short, through discussions and analysis we propose to seek answer to the question whether branding can influence and add value to consumer food choice behavior.

### **'CONSUMER BEHAVIOR' AND 'FOOD CHOICE'**

Consumer Behavior, has been defined as *the decision process and physical activity individuals engage in when evaluating, acquiring, using or disposing of goods and services (Loudon and Della Bitta, 2006).*" The conceptual analysis of consumer behavior is greatly characterized by its **interdisciplinary** (namely, the fields of Philosophy, Psychology, Sociology, Anthropology etc.) nature. The study and analysis of the purchaser's behavior is mainly centered on three variables: the process of decision making in purchasing, factors influencing the purchase behavior and the one of the consumer (Rabontu and Boncea, 2007). Involvement of the many variables and their tendency to interact and influence one another makes the study of consumer behavior very complex. So, typically, models or frameworks of consumer behavior are developed and used to deal with this complexity.

This paper will focus on **Food Choice**, which refers to the human eating behaviour or food selection expressed in terms of what food people *like* and *choose* to eat. We will briefly examine few studies that have identified factors affecting food choice among individuals.

- Sheperd's study (1985), states that factors affecting food choice can be divided into three:
  - \* Food (physical/chemical properties, nutrient content)
  - \* Person (Perception of sensory attributes, psychological factors-personality, moods)
  - \* Economic and Social (Price, availability of brand, social /cultural-attitudes)
- Steenkamp (1993) felt that any comprehensive analysis of food consumption behavior mandates taking into consideration the interactions between three types of determinants or factors, namely, properties of the food, factors related to the person and environmental factors.

*Properties of the food* include the physical and chemical properties and nutrients content (physical form, macro nutrients proportions, fiber contents, energy value) and specific substances (sugar, seasoning, salt etc.). *Factors related to the person* include biological (for instance, sex, age, body

weight), psychological and personality factors. *Environmental factors* include socio-cultural, economic and marketing factors.

- Popkin, Duffey and Larsen's study (2005), illustrates environmental influences on consumers' food choice, physical activity and energy balance. The environment includes macro and community level factors at the external level i.e. economic, legal and policy influences. It also examines ways in which the external environment affects food choice and diet, physical activity and obesity issues among the larger population.

From the above studies we propound that factors which typically affect consumers' food choice are: (a) the food product, (b) the individual person and (c) certain external environmental factors. These factors could influence the decision making process which will then lead to the consumer making a food choice. For instance, assume a family of four visits a 'Pizza Hut' outlet to try out the food offerings there. Their final choice of food will greatly depend on the offerings (its nutritional content), the persons (their age, health consciousness and gender) and external environment factors (culture, social background, price value equation, etc.).

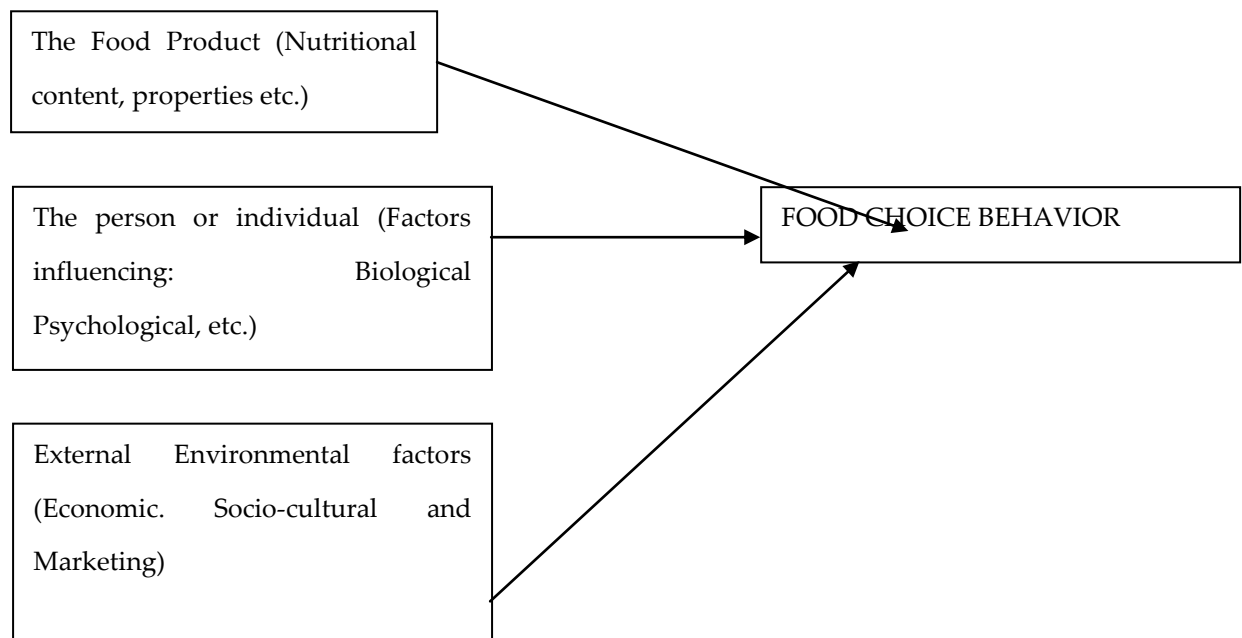


Figure 1: Factors affecting consumer's food choice

## STUDIES TO EXAMINE INFLUENCES ON CONSUMER'S FOOD CHOICE BEHAVIOR :

The consumer behaviour discipline works on the assumption that to be successful, organization's must determine the specific needs and wants of their targeted market and deliver the desired satisfaction better than competitors (Schiffman and Kanuk ,2005).The study of consumer behavior is complex because of its multidisciplinary approach. An early attempt to illustrate this can be traced to

the *Self-Concept theory* (Grubb, Grathwohl, 1967) which laid the theoretical foundation of a model of consumer behavior by examining the relationship between the psychological characteristics (an individual's self concept) and the symbolic value he associates to the goods he buys. Tybout and Hauser's study (1981) called for the creation of a marketing audit based on a conceptual model of consumer behavior which can be used for evaluating marketing strategy decisions. {Marketing audit is a comprehensive assessment of all angles (both internal and external influences) of marketing operations in an organization}. The findings suggest that by measuring the variables in the model and mapping their relationships, the managers will be able to identify strategies for altering consumers' behavior and subsequently evaluate the impact of these also. Another popular representation of consumer behavior is depicted in the Engel, Blackwell and Miniard ,1982 model ,(Loudon and Della Bhatta, 2006) which suggests viewing consumer behavior as a decision process comprising of five activities (motivation and need recognition ,search for information, evaluation of alternatives, purchase and outcomes) which occur over a period of time.

*Analyzing food choice behavior:*

While embarking through various research studies attempting to analyse food choice among individuals, one can gain a perspective on the evolving consumer behavior.

- We start by briefly going through few studies wherein the researchers' attempt to analyse consumer food choice on the basis of a certain *framework or model*.

\* The Meulenberg and Steenkamp study attempted to analyse consumer behavior with respect to food through interplay between behavior and economic research of consumer food choice. Such integrated approaches permitted the researchers to link the behavioral concept to the economic concept characteristics and further extend the findings of the research to more actionable marketing research such as product development.

\* Consumers are very much concerned about the quality and safety of the food they consume revealed a study (Chang, Tseng, Chu, 2013). This study involving consumers from Taipei, in Taiwan attempted to examine the role of a food traceability system that can create value in food exchange. The European Union (EU) General Food Law Regulation defines traceability as," the ability to trace and follow a food, feed, food-producing animal or substance through all stages of production and distribution" (*ibid*, p.1362). The study used a modified 3M framework to examine the relationship between consumer personality (elemental, compound, situational and surface traits) and a food traceability system. The findings revealed that consumers with elemental traits of 'openness, conscientiousness, extroversion and material and body needs' presented the two compound traits of 'need for learning' and 'health consciousnesses'. The latter traits influenced consumer 'concern for food value' and 'perception of food traceability labels'.

- The following studies substantiate that consumer food choice is greatly influenced by the *interplay of certain variables and external factors*.

\* Steenkamp's study (1993) on the basis of review of literature had made a classification of the determinants of food consumption behavior by concentrating on a single or few related factors. This study suggests that researchers from consumer behavior discipline (because of its interdisciplinary background ) need to take a broader approach by integrating determinants from several categories, For instance examine how physical characteristics of the product and social /cultural factors together can influence perceptions on food? How the interactions between cognitive and cultural and physiological induced effects can affect food choice and so on.

\* Luomala's study (2004) with reference to Finnish consumers, emphasized on one food attribute factor, namely, meaning that consumers attach to 'the origin -of-food', which would influence their decision making especially in terms of their attitude, evaluation, willingness to buy and choose food.

\*A study by Pliner and Mann (2004) tried to examine the effect of social influence and palatability on food choice and the amount of food consumed. The experiment revealed that social influence manipulation had no effect on participants' food choices with most of them choosing the palatable food. The findings of the study highlighted the importance of palatability in food eating behaviour. The study demonstrated that when individuals were asked to select from two foods, of which they would eat a moderate amount, (informational) social influence was ineffective in inducing them to consume the unpalatable food.

\* Popkin, Duffery and Larsen's study (2005) had examined the environment (in the external context including both the macro and community level) factors that influences the diet and physical activity, causing health disparities among the U S population. These researchers emphasized on the need to foster interdisciplinary approaches as well as develop an understanding of the factors that mediate and moderate the association between the environment, physical activity and health outcomes.

Thus, the above studies demonstrate that marketers will need to examine the efficacy and impact of the various factors which influence consumer's choice of food when initiating marketing of food products.

- There has been a growing awareness among consumers about the benefits of healthy eating. Such health conscious consumers seek to evaluate the nutritional content value and healthy benefits when making food choices. This aspect is illustrated in the following studies which will throw more light on how consumers make *healthy eating choices*.

\*Bui and Kemp's study (2011), attempted to examine variables that are crucial in the brand building process especially for 'healthy' brands among USA consumers. The findings indicated three essential



variables: brand credibility, commitment and connection, to be of utmost importance for the development of branding strategies for such "Healthy Brands".

\*Bui, et al.'s study (2013) tried to evaluate how parents in the US make food product choices for their children by looking into the nutritional information provided on the label. The findings of the study indicated that parents are more likely to choose healthier options for their children when a food group information system (providing specific nutrient claims complementing a nutrient claim) is utilized.

\*Walsh's study (2014) involving North America University students tried to examine whether priming a healthy eating goal can cause depleted consumers to prefer healthier snacks. This research implied that associating brands with health related claims may or may not affect the consumer food choice, which was dependent on the state of depletion of the consumer. I.e. when consumers are depleted, health related claims are unlikely to have an impact, whereas, in a state of no depletion it is more likely that health related claims affect their food choice.

\* Wang's study (2013) involving undergraduate students from Northern University, Taiwan, tried to investigate consumer attitudes towards visual packaging and its hierarchical impact on perceived food quality and brand preference. The results showed that attitudes towards visual packaging directly influence consumers' perceived food product quality and brand preference and indirectly influences food product value.

The above section of studies imply that with the growing segment of health conscious customers, food manufacturers and marketers need to re-work their product lines and visual packaging to create 'healthy versions' of product brands through effective communication and brand management systems.

- With advances in the field of Science and Technology it is likely that consumer food choice will be more evolved in the future. This mandates food marketers to work towards *creating good food retail experience* and value consumption for a *long term growth*. The following studies will illustrate how food marketers can work towards this.

\*Saarijarvi, Kuusela and Rintamaki (2013) through a case study of a major Finnish food retailer attempted to explore and analyze how Internet based service applications can facilitate customers' post-purchase experiences in food retailing context. This type of service application provided customers four distinct types of information including: Playing, Check-pointing, Learning and Goal orientation, which facilitated their post-purchase food retail (utilitarian or hedonic nature) experiences and the degree of transformation varying from low to high. Such experiences not only generate positive word of mouth but can pave the way for long term loyalty too.

\* Dagevos and Ophem's exploratory study (2013), worked towards the development of a consumer centred concept of value in the field of food i.e., Food Consumption Value (FCV). FCV encompasses

four elements; Product value, Functional value, Process value and Ethical considerations along with Location value and Emotional value. The study propounds viewing value of the food market beyond its traditional 'nutritional aspect' and 'value for money'. It suggests that feelings a food can arouse are valuable intangibles and very crucial for value creation and building competitiveness in the long run. Thus, marketers need to strive towards creating post-purchase positive experience and customer centric value in food consumption for a long term growth.

## **CAN BRANDING INFLUENCE FOOD CHOICE BEHAVIOUR?**

How a brand is identified from the consumers' perspective is the core of a good brand building program. Generally, the power of a brand name is referred to as brand equity. Aaker referred to brand equity as a set of brand assets and liabilities linked to a brand, its name and symbol that add to or subtract from the value provided by a product or service to a firm and/or to that firm's customers (Sheth and Mittal, 2003, p.399). For the investors, brand equity will be the brand evaluation measured as the financial worth of a brand name. While, for the customer, brand equity will be the value of the brand when compared to that of the competitor's brands.

- ❖ We will now examine few studies to determine whether branding can influence the choice of food behavior among individuals.

\*Firms need to work towards effective brand building and management because there exists a symbiotic relationship between brands and the cognitive behavior of consumers ( Rajagopal, 2006).

\* Kathuria and Gill's study (2013) in India revealed that while a majority of consumers had brand awareness of branded rice, only half of them were aware of branded sugar. Since the factors influencing purchase of selected branded commodity food products were flavour, aroma and absence of the usage of insecticides/pesticides and adulterants, the researchers felt that marketers need to work towards creating brand awareness among consumers and frame marketing strategies for different market segments based on demographics.

.\* A study to understand ' Adapting to slow food movement and brand management' (2012) and Massa and Testa's (2012) study highlighted the role of ideology in brand strategy with reference to large scale food retailing in Italy. The study concluded that a strong and effective communication retailer ideology that is shared with consumers, who in turn are also asked to participate in the construction of meanings of the retail setting (store layout), can work out to be a powerful tool in brand strategy.

\* While trying to explore the antecedents in a hedonic consumable product such as the chocolate market, it was found that brand satisfaction is the most significant factor for brand loyalty followed by brand value and brand equity (Kuikka and Laukkanen, 2012). This study further indicated that testing

of the moderating effect of the hedonic value showed brand satisfaction on attitudinal loyalty to be significantly stronger among consumers with high hedonic value when compared to consumers with low hedonic value.

\*A study to analyze the relative importance of brand-packaging and taste in affecting brand preferences for manufacturer and store brands in food product categories indicated that once the product is consumed taste is the strongest attribute determining the choice of the preferred stimulus and influence of price and product brand packaging are specific to the product category analyzed (Mendez, Oubina and Rubio, 2011).

The above few studies on the relevance of branding for food products indicate that creating brand awareness, the role of ideology, brand satisfaction, taste, price and packaging duly influence food brand choices. The broad purpose of a brand strategy is to identify ways to develop brand satisfaction among consumers, which will then lead to brand loyalty and ultimately result in brand equity in the long run.

On the basis of the discussions in the paper reiterating the complexity and interplay of the various factors and variables affecting consumer food choice we have attempted at developing a framework which will show how branding can also be used as an aid to the consumer decision making process in this regard.

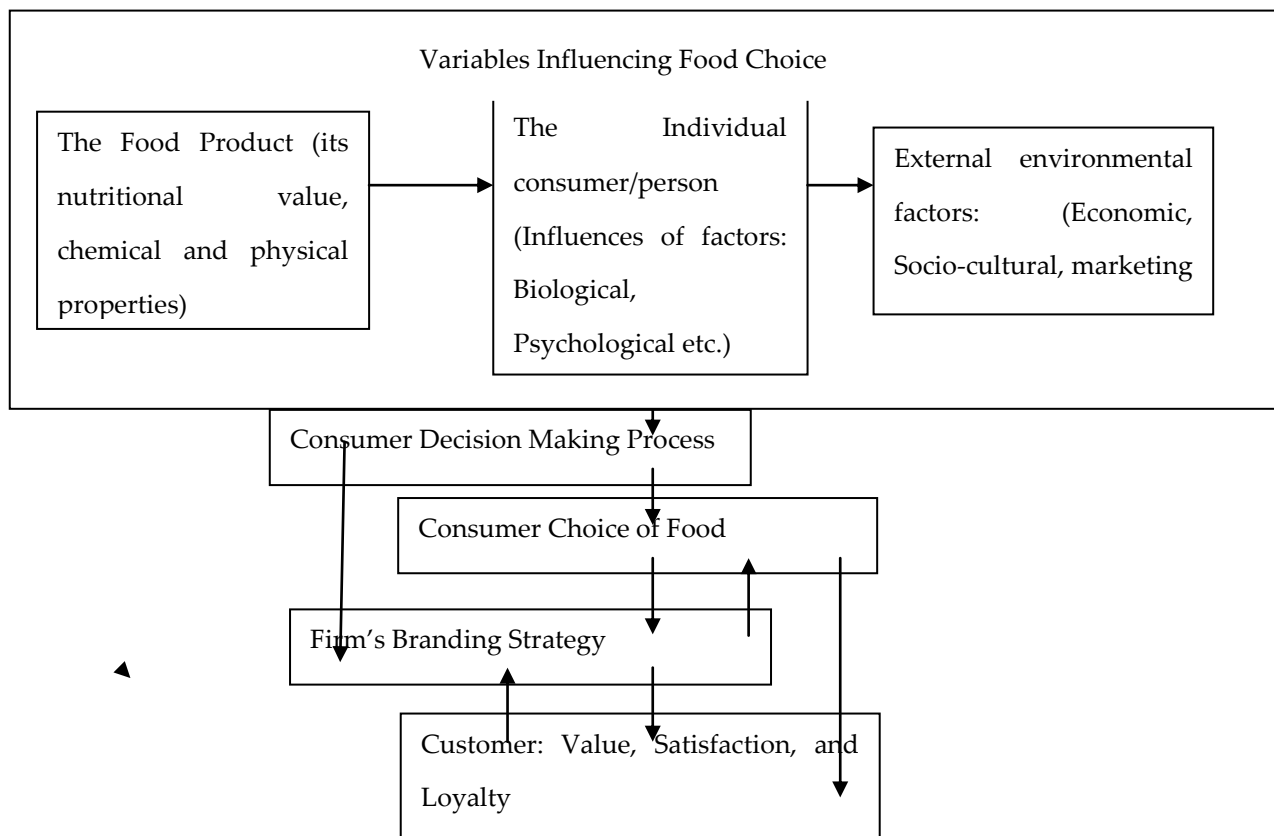


Figure 2: Framework linking factors influencing consumer food choice and branding.

From the above framework one can see that the variables influencing food choice affect consumer's decision making which results in them selecting or choosing the food. This can be observed and used by the firm to work out a branding strategy aimed at increasing customer value, satisfaction and loyalty. Another view suggests that an awareness of the variables influencing consumer food choice and affecting their decision making can be used by the firm to plan a branding strategy which can influence consumers' food choice resulting in enhanced customer value, satisfaction and loyalty in the long run. This reiterates that food marketers can use branding to effectively influence consumers food choice behavior positively.

## CONCLUSIONS AND LIMITATIONS

The above discussion have conveyed that analysing consumer choice of food is highly complex involving the interplay of many variables such as health and nutrition, social and other environmental factors, informational (food labels and packaging) and post-purchase retail experiences .Nevertheless, an understanding of the impact of the various influences can be used by food marketers to work out a suitable branding strategy and create customer (brand) value for their products.

A limitation of this paper is that all discussions and analysis have been done on the basis of secondary research data. A primary data survey would have helped to learn more on the current happenings in this field of study and also substantiate whether the earlier findings hold good even today. Another limitation is that although attempts were made to refer to studies from various regions, it was not possible to obtain much information from many of the developed countries (other than a few) and even from emerging and growing economies such as Asia (barring a few), the Middle East and African countries. Even though consumption of food is a basic need, the social and cultural variations amongst different regions will affect the way it is consumed. So as to obtain a broader perspective, analyzing food choice behaviour of consumers from across the world would be interesting. Today, when the world is referred to as a global village and marketers are seeking to expand their market across seas, it will really be interesting to learn more on the variations in food choice among consumers across various regions, and this also can be an area of probing and researching in the future.

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## ESTABLISHMENT OF THE NATIONAL PROGRAMME OF VOCATIONAL GUIDANCE IN LITHUANIA: CHALLENGES AND PERSPECTIVES

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### ABSTRACT

In Lithuania, where its economy is recovering from crisis, many industrial enterprises encounter sharper increased shortages of qualified workers. However, in most cases, this shortage in the country's labor market is not around some one particular occupation that raises selectively the requirements for human qualifications in knowledge, health, or psychic particularities, but for multitude of popular vocations, such as for long- distance drivers, welders, cooks, etc.

The national labor market frequently encounters paradoxical situations; during times of high unemployment and expanded educational levels employers ask the state for permission to import third country specialists because of deficits in many vocations. For some occupations such shortages already existed for several years with no indications of future improvement.

Balancing the demand and supply of skilled workforce in the labor market is a challenge of vocational guidance. Current skills mismatches in the labor market indicate, that the currently applied national program for vocational guidance in the national education system is not able to solve these skills mismatches. This prompts the search for ways and means for improving the situation.

This article, while seeking to achieve a balance between supply and demand as well as rational utilization of available human capital, analyses the causes of the continuous deficit of skilled workforce in various fields. It also will provide recommendations to correct the situation.

**Keywords:** *Vocational guidance, human resource management, skills mismatches, labour market*

### INTRODUCTION

The relevance of the subject theme is based on the contemporary situation in Lithuania's labor market, characterized by asymmetry and disproportion between supply and demand of workforce, because there is a surplus of some specialists and a shortage of others. Furthermore, contradictory situations

appear, when despite of high unemployment and big supply of educated workforce employers ask for state's permission to import middle level professionals (drivers, welders, cooks, etc.) from the third countries, because such skilled workers can not be found in the local labour market. Such shortages exist in Lithuanian labor market for several years now with no visible indications of change in the future.

At the same time statistical data indicate that one fourth of university and college level graduates in social science studies are forced to take jobs as common laborers upon their arrival in the labor market. Among the graduates in engineering manufacturing and processing studies this index reaches almost a half, while among graduates of agricultural and veterinary studies it reaches 60 percent (Lithuanian Labour Exchange, 2014). The number of the graduates of universities going to the initial VET schools for retraining is also increasing.

According to data of the Ministry of Education and Science, 423 graduates of higher education entered vocational schools: 222- university graduates, 201 college, while in year 2012 such number of people almost doubled - it grew to 812, who have diplomas of higher education , 464 of them are university graduates , 348 – college ( Jukneviute, 2013) .

However, the situation, where most people work below their qualifications can last a long time, since experts note that young people are not reacting to the labour market needs and tend to make the same preferences in choosing their fields of studies to become economist, lawyer, psychologist, business administrator, manager. They face the biggest risk of unemployment. One of the reasons of this situation is that a significant part of young people choose their vocational pathway without prior evaluation of the employment possibilities. Therefore it is not surprising, that a major part of young people having attained higher education degree, but unable to find jobs must re-qualify and often end - up looking for work outside Lithuania, choosing the life of emigrants.

All this urges us to study and analyse the reasons for evoking deformations in the market place and in utilization of human capital as well as to search for ways and means to correct the situation.

Vocational guidance plays crucial role in dealing with labour market mismatches in many countries. Effective vocational guidance can act as a remedy of existing skills mismatches (when it is provided to the unemployed persons), but it's most important target should be prevention of structural unemployment by directing youth to the vocational pathways providing qualifications that are in demand in the labour market. We claim that strategic and long-term prevention of structural unemployment and skills mismatches requires systemic national programme of vocational guidance with the key role played by employers. In this paper we will try to provide the arguments for this statement by analysing of the role of enterprises in the process of vocational guidance, disclosing the attitudes of enterprises to their involvement of in the vocational guidance and providing arguments

for the establishment of the national programme of the employers led vocational guidance.

To solve the above tasks the were applied different research methods :

- a) Systemic analysis of the different factors and features of the involvement of enterprises in the vocational guidance based on the desktop research.
- b) Analysis of available statistical data.
- d) Empirical research consisting of : 1) Interviews with employers and leaders of associated business structures; 2) Questionnaires for surveying of leaders in associated structures.

Interviews were performed in three economic sectors :

- 1. Transport.
- 2. Metal processing industry.
- 3. Information technology.

## **THE ROLE OF ENTERPRISES IN THE PROCESS OF VOCATIONAL GUIDANCE**

The role and importance of enterprises in choosing vocation and, in general, in vocational guidance becomes apparent when an individual at some point has to find answers to himself: what I want to be? What path in my life I should take? And what profession or occupation I should choose?

The answer is not an easy one as choice of a profession or occupation is a complex and responsible individual psychological act. It results in huge psycho-social consequences not only to a person himself, but also the entire society.

Occupational choice and its subjective and objective factors are the central objects of vocational guidance and its research. Choice of occupation or profession involves numerous contradictions and conflicts between the objective factors defined by the labour market demand and subjective factors, that are defined by the needs and intentions of learners and employees. Theories of psychology, sociology and education science focus on the different aspects of these factors and involvement of enterprises in the vocational guidance process. For example, the theory of occupational choice offered by Parsons is focused on the fit of the personality to the work environment, while the theories of dynamic personality are focused on the complex interdependencies between the dynamic change of personality and the process of the choice of occupation or profession. Very similarly, the theories focused on the structure of personality (Axelrod, Ginzberg, Ginsburg, Miller, Super), motivation (Maslow, Vrum) and individual's choices (Holland, Tyler) stress the complexity and changeability of personality as the key factors in the choice of occupation or profession. These theories also bring the concepts of occupational choice oriented to the personality and subjectivity, such as the concept of casual occupational choice, internal impulse of the occupational choice (Yolland), free development of



personality (Holland, Ginzberg, Super). Obviously, these theories and concepts considered the role of enterprises as secondary factor in the process of occupational choice led by the persons. Very different attitudes to subjective and objective factors of vocational guidance were typical for the theories and concepts developed by the scientists from the former Soviet Union. The concepts of human existence developed by Vygotski, Rubinstein and Leontiev placed socially useful work at the centre of human existence largely ignoring the personal needs and interests of humans. Such theoretical assumptions largely influenced development of vocational guidance in the Soviet Union.

Lithuanian scientist L. Jovaiša has developed psychosocial theory of vocational guidance targeted to the optimal usage of personal resources in the vocational training and subsequent work. He discerned three main factors of the occupational choice: 1) requirements of occupations and professions, 2) demands of economy and labour market; 3) vocation of person for certain work or occupation. This model of vocational guidance is rather similar to the model proposed by S. Fukuyama, who discerned the following factors of mature occupational choice: 1) self-analysis of the personal features and resources; 2) knowledge and awareness of the world of work; 3) introduction to occupation and its requirements by practicing the concrete occupations. All these factors require systemic pedagogical support. For example, young people need methodical guidance and help from teachers in performing self-analysis of their personal features and resources. Equally so, in analysing the requirements of work and occupations young people need both access to information about occupations and consultations provided by the teachers and professionals. Referring to the models of vocational guidance proposed by Jovaiša and Fukuyama there can be discerned several types of requirements of systemic vocational guidance related to above mentioned factors: work process requirements, labour market needs and personal vocation for the occupation. These requirements present different implications to the involvement of enterprises in the vocational guidance. Referring to the work process requirements there can be discerned availability of information about the work processes and monitoring of the changes of work processes. Effective vocational guidance requires access to comprehensive, systemic and regularly updated information about the contents of work processes in the different occupations and professions. Availability of such information can be ensured by the different measures and instruments, such as occupational standards, national and sectoral databases of occupations and qualifications, catalogues and registers of occupations and qualifications (for example, national repertory of the descriptors of occupations in France – ROME, or the open system of information and guidance on occupations and qualifications AIKOS in Lithuania). In spite of the domination of the national governments in designing and implementation of these measures in many countries, the involvement of enterprises and social partners by providing information and expertise is of crucial importance for the quality of these measures. Monitoring of the occupational change also

requires solid and concerted efforts of research institutions, enterprises and other social partners. It ensures relevant updating of the information about the work process requirements, what is of crucial importance for vocational guidance in the current context of fast changes in the world of work. Referring to the factors of vocational guidance related to labour market needs, there can be discerned labour market forecasting and exerting influence to the development of labour market needs. Effective vocational guidance requires reliable information about the labour market changes, that can be provided by systemic and regular labour market needs forecasting. In the nowadays conditions of the fast and unpredictable social and economic change labour market forecasting is very often undervalued and its reliability is doubted. However, despite of its multiple limitations, labour market forecasting is absolutely indispensable not only for the long term labour market policies and strategies, but also for the vocational guidance. Relevance and reliability of labour market needs forecasting highly depend on the involvement of employers in this process on the enterprise, sector and national levels. National and European strategies of the knowledge-based economy often require from the state and social partners to take more responsibilities and to make more efforts to improve the quality of employment and to enhance the demand for high-quality and knowledge intensive jobs. Enhancement of the demand for such jobs is perceived as a key factor for development of competitive economy. Referring to the factors of vocational guidance related to personal vocation, there can be mentioned orientation of the educational process to assistance for learners to discover their personal vocation and to strengthen it. This orientation requires from educational institutions to become more open to the world of work by establishing stronger cooperation with enterprises and involving the skilled employees and professionals in the educational process. Implementation of the competence based paradigm in the education process also fits to this purpose. Providing to young learners systemic pedagogical and psychological support in discovering and nurturing their personal vocation becomes very challenging undertaking for general and vocational education providers in the context of dynamically changing occupations, work processes and labour market. It requires to restructure the education process by including different propaedeutic and work-based learning measures.

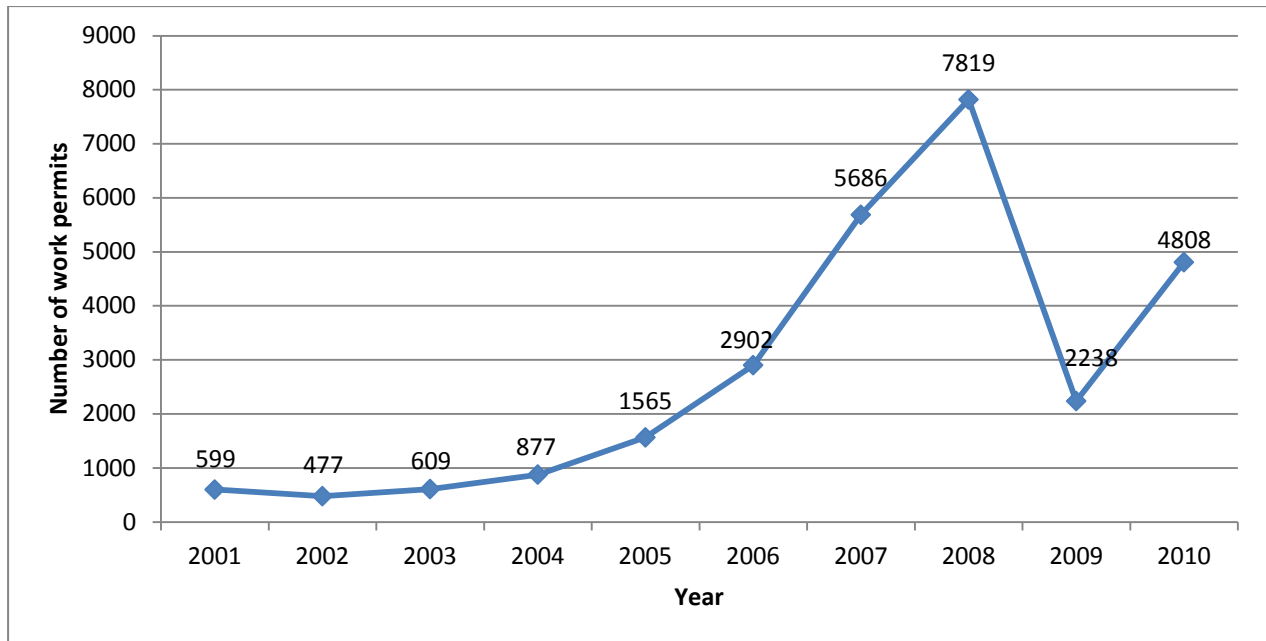
Development of vocational guidance can be based on the different methodological principles, that can even contradict each other. Hupfer and Spöttl (2014) discern the principles of vocationalism and employability. The object of vocationalism is development of an occupational identity through mastering of the professional domain, while the principle of employability is focused on the market oriented dispositions and attitudes that ensure the competitive features of person in the labour market. This principle is based on the assumption of the domination of economic organisation of work and disregards educational and vocational-pedagogical principles of the work and its organisation.

These two principles, if taken separately, lead to the different models of vocational guidance. The principle of vocationalism requires comprehensive and holistic vocational guidance based on the systemic consideration of the different subjective factors, such as needs of development of personality and occupational identity, ethical and moral aspects of work. Vocational guidance ruled by the principle of employability will be more focused on the requirements of workplaces and orientation to the „objective“ requirements of workplaces to the performance, such as concrete sets of knowledge and skills to perform the work tasks. It turns to the different roles and involvement to the employers in these models. In the model of vocational guidance based on the vocationalism, the main role of employers is active participation in the educational process by providing the comprehensive information about work processes, involving skilled employees and experts in the preparation and execution of vocational guidance measures, designing and implementing different propaedeutic and apprenticeship measures and events in order to disclose to young people the holistic picture of work processes and professionals. Enterprises treat their participation in the vocational guidance not only from the point of view of their business interests, but also from the point of view of public social responsibility. In the model of vocational guidance based on the employability the enterprises participate in this process by „marketing“ their offered workplaces and presenting the requirements of skills, competences and qualifications. Here the participation of enterprises in vocational guidance processes is more strictly based on the current needs of recruitment and human resource management.

## **2. INVOLVEMENT OF BUSINESSES IN CAREER GUIDANCE**

The problem of the shortage of skilled workforce in specific sectors of economy of Lithuania has been discussed for a number of years. Interestingly, the biggest shortages of skilled workforce is noticed in ordinary and middle skilled occupations, rather than any specific or unique professions with special requirements for skills and competences.

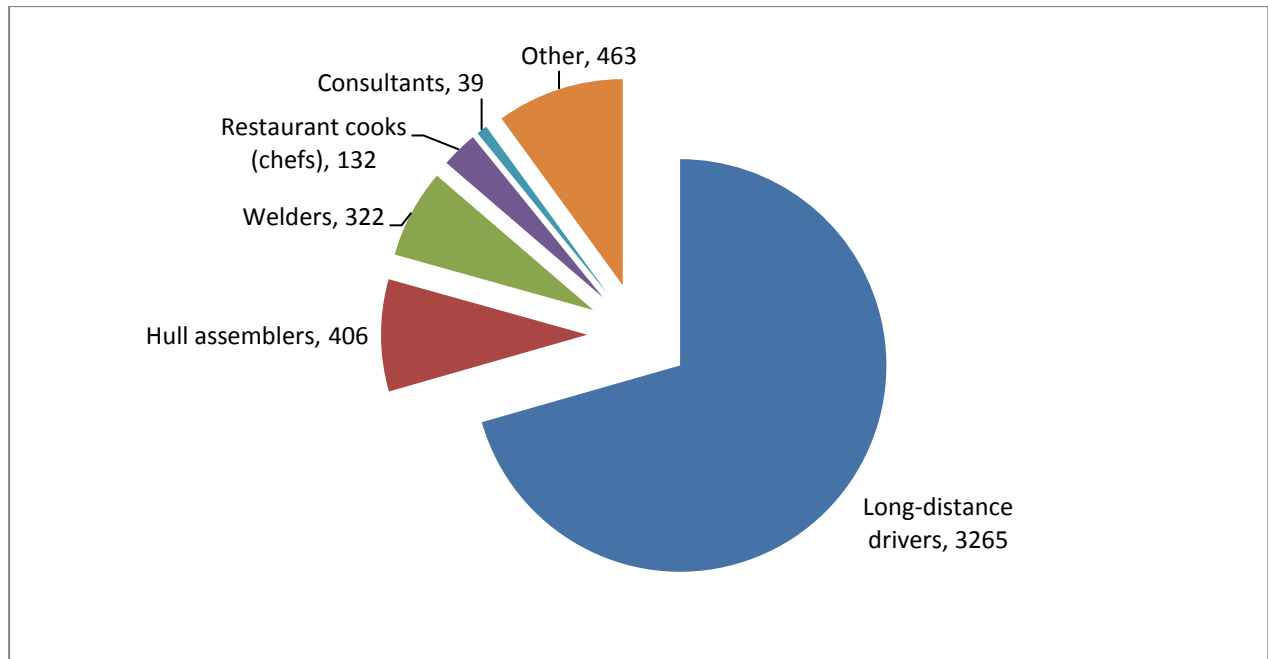
The number of work permits issued to foreign nationals in the Republic of Lithuania indicates the shortage of skilled workforce and its extent on the domestic labour market. The data are provided in Figure 1 below.



**Fig.No. 1. Number of work permits issued to third-country nationals**

According to the data contained in Figure 1, in the recent decade, the number of work permits issued to foreign nationals in Lithuania has been significantly growing, and it has already reached a four-digit level. This causes concern, however, one should also remember that third-country nationals are employed only in the sectors that face the shortage of professionals from Lithuania and EU member states. According to the data of the Lithuanian Labour Exchange of 2010, long-distance drivers, hull assemblers, welders and cooks (Foreign Nationals in Lithuania, 2011) were in the highest demand.

In terms of the shortage of certain occupations, the labour market situation, from a time perspective, continues to deteriorate, as the gap between the supply of and demand for the lacking occupations is still widening. The number of work permits for specialists of different occupations (especially the truck drivers) is rather important (Figure 2).



**Fig. No.2. Distribution of work permits issued to foreign nationals in the Republic of Lithuania by occupation, 2012**

In 2012 alone, Lithuania issued 4,125 work permits to these third-country professionals.

Admittedly, the demand for cargo truck drivers might be still increasing in the future, as in 2011 alone 6,300 cargo truck driver job vacancies were registered for international carriage of goods, and only 1,100 of these were filled by Lithuanian drivers (Kleinauskas, 2012). At the same time, statistics reveal that, at present, two thirds of long-distance cargo truck drivers are aged between 40 and 60. ("Mercedes-Benz" Intends to Tackle the Shortage of Drivers by Using Innovative Methods). The ageing of cargo truck drivers also causes concern over the sufficient number of these professionals in the future.

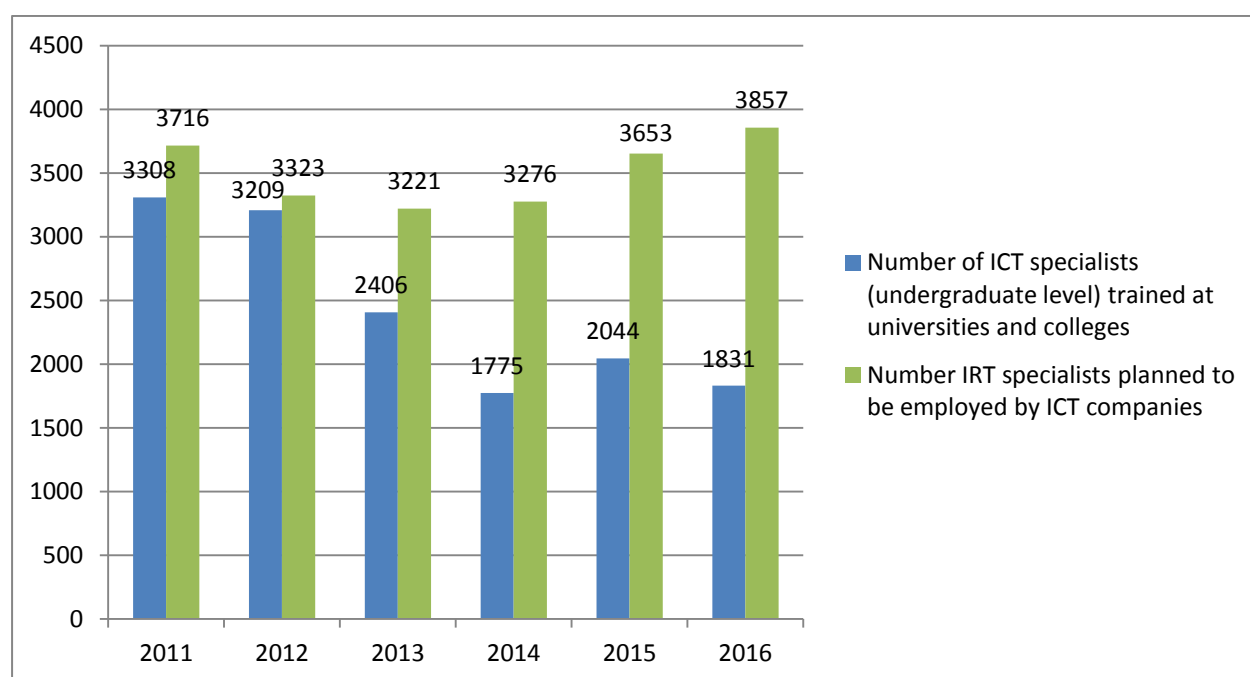
With the widening gap between supply and demand, the domestic labour market situation is also becoming more complicated in relation to welding professionals. Statistics show that the labour market demand for welders was increasing even under the conditions of economic crisis: in 2009, 2010 and 2011 there were 1,700, 2,400 and 3,000 welding job vacancies respectively (Suvirintojų nuo emigracijos nesustabdo ir 4 tūkst. Lt atlyginimas, Delfi, 2012).

Above described situation enhanced to carry out research in order to clarify the reasons for the persistent shortage of individual occupations on the labour market and to explore the involvement of companies in vocational guidance.

In February 2014 there have been interviewed representatives of the several sectoral associations of business enterprises. These include: (1) Lithuanian National Road Carriers Association "Linava", which at present joins 954 carriers – transport companies owning around 20,000 commercial vehicles for international carriage of goods and approximately 3,000 buses and trolleybuses for carriage of

passengers; (2) Lithuanian Welders Association that unites representatives of the welding industry (machinery production, metalworking) - there are approximately 700 companies engaged in welding technologies; and (3) National Association of the Information and Communication Technologies (ICT) Industry “Infobalt”, which currently unites 138 Lithuanian ICT companies and research and education institutions. These companies and organisations employ over 10,000 ICT specialists.

It should be noted that the ICT industry it suffers from a dramatically widening gap between supply of and demand of skilled employees. Data contained in Figure 3 (Brazauskas, 2011) show the shortage of ICT specialists and the perspectives of meeting the demand.



**Fig. No.3: Training of IT professionals and their demand in the domestic economy**

In 2011-2016, the gap between the supply of and demand for ICT specialists will reach 6,000. This estimate does not consider possible increase in specialist mobility and entry of potential investors to this Lithuanian sector, which might widen the gap even further.

The data contained in Figure 3 reveal that the gap on the labour market between the supply of and demand for IT specialists is further widening. In 2011-2016, the shortage of IT specialists is expected to reach 6000. Lack of skilled employees hinders the promotion of investments in the country's economy and impedes the development of economy and individual industries.

Research was primarily aimed at establishing the groups of professionals that were the most required in the above mentioned sectors.

The data obtained were systematised on the basis of Lithuanian Classification of Occupations. They are provided in Table 1 below.

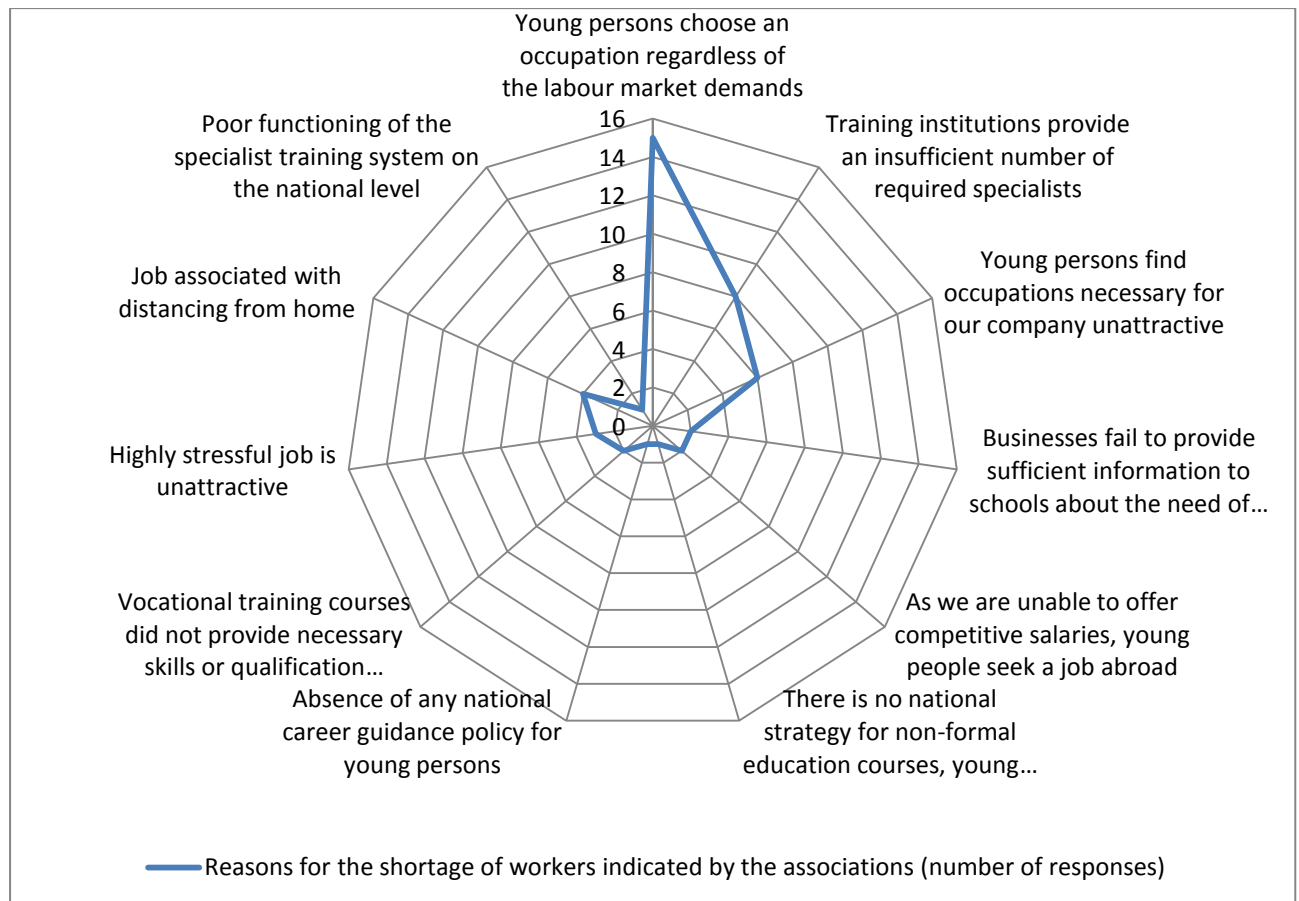
**Table No.1. Number of lacking workers by professional group**

Association name	Professional group					
	Management	Experts	Technicians and junior experts specialists	Servants	Skilled workers	Unskilled workers
Linava	-	-	-	-	2,500	-
Infobalt	300	7,000	2,700	-	-	-
Welders Association	-	500	200	-	3,800	-

Statistics provided in Table 1 show that three sectors alone need 17,000 skilled workers. This implies that filling these job vacancies would lead to a significant decrease of the unemployment rate in Lithuania. On 1 February 2014, the unemployed registered with local labour exchange offices numbered 210,900. They accounted for 11.5% of the country's population of working age, including 111,700 unemployed males and 99,300 unemployed females. On 1 February 2014, there were 24,000 registered young unemployed persons under the age of 25. (Lithuanian Labour Exchange, Information, 2014).

Some labor market forecasts failed in detecting the shortage of IT specialists. Although it was estimated that (see Table 1) the requirement of IT specialists would reach 6,000 in 2016, the study shows that already now 10,000 persons are required.

The managers of the above mentioned associations were asked about the reasons for the shortage of workers in their sectors. Taking into consideration the possible variety of causes of the shortage of experts on the labour market, the managers of the associations were requested to name five key reasons for the shortage of skilled workforce. In addition, they were asked to rate their answers from 5 to 1, where 5 points were given to the most important aspect. The data obtained were systematised and are provided in Figure 4 below.



**Fig.No.4. Key reasons, as seen by associations, for the shortage of certain occupations on the domestic labour market**

According to Figure 4, there are 11 main reasons why companies suffer the shortage of workers. Yet, the fact that young persons choose an occupation regardless of the labour market needs is predominant among other reasons. This implies that the responsibility for the shortage of certain skilled workers or specialists basically rests with those who choose their occupation.

However, such a position taken by the respondents raises doubts and a number of questions as to: (1) the objectivity and moral correctness of this attitude; (2) the sufficiency of efforts of businesses to encourage young people to opt for occupations that are absolutely necessary for the country's economy; (3) extent of the usage of human resources potential in meeting business requirements for necessary occupations; and (4) the need for employers to change their attitude to both young persons and their occupational choice.

Such issues are reasonable and well-founded. For instance, whenever the shortage of cargo truck drivers is mentioned, it is often claimed that this is a male-dominated occupation, and this stereotype is still common in Lithuania. However, in the USA and Canada women working as cargo truck drivers account for 5% of the overall number of truck drivers. Americans admit that they are not satisfied with such situation and target to increase the employment of women in this position to



achieve that women would make at least 10% of total cargo truck drivers. It should be noted that the cases where man and wife, father and daughter, couples, etc. work as long-distance drivers are quite common in the United States. For driving pairs, this is not only the way to earn money, but also the possibility of travelling together, communicating, enjoying their work and life. The United Kingdom, France, Sweden and some other countries even have organisations promoting employment of women for cargo truck driver jobs. Such organisations are particularly successful in Sweden. However, there are no considerations of this employment niche for women in Lithuania. Respondents say, that one of the reasons for excluding such an occupation as an option for choice is distancing from the family. However, the practice of other countries demonstrates that, in a number of cases the occupation of a long-distance driver can unite families rather than to pull them apart.

Reasons related to the quantity and quality of specialist training come in second place. It should be noted that, according to the interviewed business associations, the initial VET schools and higher education establishments fail to meet the needs of quantity and quality of skilled specialists.

In some cases, as for example, in case of welders the graduates of initial VET schools do not have all certificates that are needed for the immediate work after employment. Here the problem lies in the insufficiency of the contents of provided qualifications for the execution of work tasks. It's no wonder that employers who recruit such persons still need to devote a great deal of effort and money to their further vocational training for them to obtain documents necessary for the job. For this reason, when recruiting staff, employers give priority to persons with all needed qualifications and professional experience rather than young graduate specialists. This partially explains why the problem of youth unemployment persists in Lithuania, though at the same time there is a shortage of professionals in the different fields (like, for example, welding).

The current situation shows that the issues related to training of specialists of specific areas need to be tackled in order to increase youth employment. It could be possibly dealt with through a better cooperation between employers and training institutions and by joining efforts in the preparation of occupational standards and their integration in curricula. Nevertheless, documents and surveys (Nazelskis, Tutlys, 2013) reveal that this kind of cooperation is still rather weak.

Studies of Peter Drucker, a famous American manager and the author of a number of research papers, are valuable in dealing with the sensitive and complicated issue of specialist training. Taking into consideration worldwide social transformations and the role of organisations in transformation processes, this researcher claims that: "Only the organisation can convert the specialised knowledge of the knowledge worker into performance, and the human capital to the structural capital" (Drucker 1994:88). Due to the need of highly skilled workers the involvement of organisations in specialist training become an objective necessity.

Further, the representatives of business associations were asked about their involvement in vocational guidance. The data obtained were systematised and are provided in Table 4 below.

**Table No. 4. Involvement of business associations in vocational guidance**

Item	Association name	Yes	No	No answer
1	Linava			+
2.	Infobalt	+		
3.	Welders Association	+		

Not all associations gave a positive answer to the question about their involvement in vocational guidance. This implies that not all of them are practically engaged in such activities. Since the association “Linava” gave no answer to the successive questions related to vocational guidance, this is a well-founded assumption.

Following the question about the involvement of companies and associations in vocational guidance, respondents were further asked about the forms of their involvement in vocational guidance. Their responses were systematised and are provided in Table 5 below.

**Table No. 5. Main forms of vocational guidance used by companies and associations**

Item	Association title	Forms of vocational guidance
1	Infobalt	<ol style="list-style-type: none"> <li>1. Tours for teachers and pupils arranged at the company;</li> <li>2. On-line lessons for pupils;</li> <li>3. Cooperation with informatics teachers association LInMA;</li> <li>4. Prizes for the Informatics Olympics and informatics competition “Bebras”;</li> <li>5. Organisation of the event “IT naktis” (IT Night);</li> <li>6. Implementation of the project “Demola”, in which business representatives (mentors) and students together develop new products focused on the solution of a specific problem raised by a company.</li> </ol>
2.	Welders Association	<ol style="list-style-type: none"> <li>1. Evaluation of new vocational training curricula;</li> <li>2. Market survey conducted and three draft curricula (welding coordinator, brazer and plastics welder) prepared in 2007-2008;</li> <li>3. A curriculum prepared for MIG/MAG welders in 2012.</li> </ol>

It should be noted that the data contained in Table 5 speak of a controversial and interesting phenomenon – companies are convinced that they participate in vocational guidance, but their indicated forms of involvement show that these representatives have rather distorted understanding of the contents of vocational guidance. Bigger part of their indicated measures hardly have anything in common with vocational guidance on the whole or play only a secondary role in the vocational guidance process. In addition, their indicated measures evidence, that vocational guidance provided by economic entities lacks clear structure and focus.

In this context, it is worth mentioning that modern information technologies offer wide opportunities for economic entities to take part in vocational guidance and provision of information about occupations and skills needs. Specifically, the development of specialised websites allows the

provision of information about occupations, their need, prospects and requirements of each specific occupation for human skills, knowledge, health and physiological characteristics.

Also, it should be reminded that persons choosing an occupation, planning their future and seeking vocational retraining should be aware of social and economic aspects of a specific occupation, such as salary rates, social benefits, health implications, cultural and routine conditions, possibilities to attain qualification, training institutions providing required training, etc.

Practice shows that preparation of specialised information publications, articles and radio or television broadcastings dedicated to young persons, parents, teachers, redundant workers and jobseekers are also effective in vocational guidance. These measures, however, are missing in the analysis of the provision of vocational guidance by companies and their associations.

Likewise, the analysis of the provision of vocational guidance by companies and associations shows the lack of an proactive approach of economic entities in the organisation of joint information events with the Lithuanian Labour Exchange for: (a) redundant workers; (b) the long-term unemployed; and (c) persons whose occupation is redundant on the labour market and who thus are unable to find a job according to their specialisation. It needs to be reminded that these groups form a tremendous reserve for the supply of necessary workers.

Further, to ensure the objectivity of the assessment of activities of companies and associations in the field of vocational guidance, informantss had to answer the following two clarifying questions: (1) Does your company (association) implement any vocational guidance programme? In response to this question, all respondents frankly admitted having no such programme; (2) How much money do you allocate for vocational guidance? Responses to this question reveal that the Welders Association allocates a considerable amount for vocational education of pupils (up to LTL 200,000 a year), including non-formal education and professional development of teachers (LTL 1.3 million in two years). This association also provides LTL 2.75 million (EU funds, budget funds and companies' funds) for work with students. However, no funds are specifically used for vocational guidance purposes.

Summarised findings of the empirical research show that individual segments of the Lithuanian labour market are facing a critical situation caused by the shortage of skilled workers. At the same time, the research reveals that economic entities, which should be the most concerned about the sufficient supply of professionals on the labour market, fail to take any part in vocational guidance or their involvement is very limited and episodic.

## **NECESSITY FOR CHANGING THE ATTITUDE OF ECONOMIC ENTITIES TO VOCATIONAL GUIDANCE AND FOR SPECIALIST TRAINING IN ORDER TO DEVELOP THE NATIONAL PROGRAMME FOR VOCATIONAL GUIDANCE IN THE EDUCATION SYSTEM**

Statistics speaking of the shortage of professionals in specific areas of the country's labour market, first of all, encourage finding ways and measures to rectify the situation; second, it becomes evident that the existent National Programme for Vocational Guidance in the Education System and the vocational guidance system functioning within its framework are incapable of fully ensuring the supply of skilled professionals that are required for the country's economy and labour market. However, it would be wrong to attribute full responsibility for the current situation on the Lithuanian labour market only to pedagogical vocational guidance provided by education institutions. On the contrary, even from a retrospective view of the history of Lithuanian pedagogical vocational guidance, education workers have significantly contributed to the development of vocational guidance in Lithuania and the global theory and practice of vocational guidance. Their contribution becomes even more visible in the context of vocational guidance in Lithuania and historical changes.

It should be noted that, in vocational guidance, a number of democracies followed the evolutionary path. In our country vocational guidance was altogether banned for a long time. This prohibition was imposed in 1936 by the special resolution of the Central Committee of the Communist Party of the Soviet Union on pedagogical deviations in the people's commissariat education system. This resolution categorically prohibited vocational guidance research or the use of test methods and stopped the application of any psychological techniques and professional selection.

Following Lithuania's annexation and incorporation in the USSR in 1940, the abovementioned resolution automatically came into force in Lithuania and was valid until the middle of the last century. As rightly noted by K.G. Pelikian (Пиликян 2009:38-45), a prominent researcher of the USSR history of vocational guidance, this prohibition was lifted in the mid 40's of the last century owing to the efforts, courage and ingenuity of A.Volkovsky, L.Jovaiša, M.Vinogradova, G.Galkytė, M.Kopanev, B.Uspensky and other researchers who argued for the necessity of training young persons for occupation.

Lithuanian education workers (L.Jovaiša, G.Galkytė, etc.) substantially contributed to the revival of vocational guidance. With the revival of vocational guidance, Lithuanian researchers channelled tremendous efforts into theoretical foundations of vocational guidance, experimental research and practical use of research results. Important contribution in the development of theoretical foundations was made by L.Jovaiša and S.Kregždė, who were destined not only to open the door to vocational guidance, but also to lay theoretical foundations in this area.

While building theoretical foundations for vocational guidance, L.Jovaiša came up with an idea and developed a vision, which is dealing with objectively existent contradictions between the public demand for skilled professionals required to secure the functioning of the country's economy and the needs, abilities, subjective attitude to work and career choices of a particular person by training and educating of a person and through the personality development. Thus, then prevalent administrative, party and military mobilisation measures, which helped to ensure staffing in a number of cases, were opposed with a tailored education system dedicated to pupils' professional focussing, development of their ability to choose an occupation with full awareness and assistance in their career choices, when needed.

It should be further noted that vocational guidance, as being closely associated with the need to give answers to complicated philosophical questions about the human being, ideals, values, etc. of the society and of an individual, naturally covers fundamental problems for young people that encourage search for the meaning of human life and allow for real possibilities of achieving one's life goals. Such responses already entail a number of further questions about human rights and freedoms enjoyed in the country, personal life management possibilities, rational use of human potential in economy and a number of other factors affecting personal and society's life.

By referring to vocational guidance and personal aspects of career choice, L.Jovaiša found an effective method and measure allowing for: (1) the change of the government's and society's attitude to a person; and (2) the extension of human rights and freedoms and a conscious and responsible management of personal life. Conditions were also provided for the commencement and promotion of scientific discussions on critical issues of the social life of that time.

It should, however, be admitted that, regardless of the achievements of the time in vocational guidance, under the conditions of planned economy vocational guidance could function only within a strict framework: it was fully regulated by the state which planned how many persons were to be admitted to universities, higher vocational technical schools (now transformed to the universities of applied science), vocational and technical training schools, etc. In addition, graduates of training institutions were compulsorily appointed to perform certain jobs for a set number of years. As a result, economic entities did not have to take care of staffing or compete for workers, as only a timely application sufficed to ensure the supply of necessary specialists. However, such practice did not stimulate companies and organisations to take part in vocational guidance and created a stereotype that the vocational choice was personal, family or training institutions' concern.

Further, in Lithuania's transition from the planned economy to the market economy, vocational guidance received considerably less attention. Young persons were left to make their own choices. In other words, previous achievements in the area of vocational guidance were lost, though nothing new

was created. Naturally, such a vocational guidance situation led to the misbalance on the country's labour market, which faces severe shortage of some occupations and, at the same time, the redundancy of other occupations.

With the final shift to the market economy, vocational guidance again was brought into focus. High aspirations towards vocational guidance were associated with the National Programme for Vocational Guidance in the Education System approved by Order No ISAK-2332 of the Minister of Education and Science of 3 December 2007. The Programme was revised by Order No V-580 of the Minister of Education of Science of the Republic of Lithuania of 25 June 2013.

Yet, a few years after the approval and revision of the Programme, the labour market situation seems to be even deteriorating with the increasing youth emigration, disproportion between supply and demand on the labour market and the shortage of experts of specific areas.

Naturally, in order to balance supply and demand on the labour market, it is necessary to change the attitude of companies and organisations to vocational guidance, as surveys show that economic entities poorly understand their position, role and importance in terms of the choice of career and vocational guidance, and also its benefits for individuals, economic entities and the society as a whole. Therefore, to make sure that economic entities take a different approach to vocational guidance, it is important that companies and organisations fully understand the advantages of effective vocational guidance. In this context, research data provided by S.N.Kurovskaja (Куровская, 2009:23) are indeed useful. Based on the experience of foreign states and research findings concerning the benefits of career guidance for population and economic entities, she provides the following data: (1) effective vocational guidance reduces the time and costs of vocational training by 2-2.5 times; (2) reduces staff turnover by three times; and (3) increases performance efficiency by 20-30%.

Significant research in relation to the importance of the choice of career and its effect on economic entities is introduced by researcher A.Zaicev (Зайцев, 2011). He conducted research in 2010 after surveying the employed from Western Europe, Eastern and Central Europe and Russia as regards their satisfaction with their career choices.

This research revealed that Western Europeans dissatisfied with their career choices accounted for maximum 15%, the majority of which are workers employed at production facilities. At the same time, such workers in Eastern Europe and former Soviet Union countries accounted for 30%, while in Russia dissatisfied persons aged between 40 and 50 made up to 50%. Notably, a number of respondents openly admitted that they consider their jobs as servitude and that they only perform their duties from 9 a.m. to 6 p.m. and are ready to change their occupation at the earliest opportunity.

The findings of this research make it evident that, from the employer's perspective, building a team of like-minded individuals, readily investing in staff training and professional development, increasing

corporate performance efficiency, ensuring business stability or reducing staff turnover pose a serious problem, as due to the wrong choice of career quite a significant number of workers look forward to the first opportunity to change the occupation they dislike.

At the same time, it should be admitted that the change of employers' attitude to vocational guidance and even their good will alone might be insufficient in order to use the available human capital in a rational way and to balance the labour market situation, as the provision of vocational guidance requires special knowledge and abilities to carry out specialised research and use the outcomes in practice.

In other words, in order to meet changing demand of the economy for workers, a number of tasks related to career choices need to be performed by practitioners working in companies and organisations, because it is economic entities, seeking a competitive advantage, who should be the most concerned about the availability of professionals of relevant areas. This is why the engagement of practitioners in vocational guidance is an objective necessity, which encourages companies and organisations to have specialists who are capable of using participatory research based methods and to develop the information and know-how about work processes and occupations.

According to a widely used definition of the modern human resource management saying that "human resource management is understood as a systematic and uninterrupted process aimed at satisfying ever changing staffing needs of a company and at formulating a staffing policy in order to ensure long-term and effective company's operation" (Чукупеев, Корытова, 2010:14), in modern companies and organisations the responsibility for meeting the staffing needs, as a rule, rests with HR managers. For this reason, taking into account the importance of their professionalism and the necessity of their contribution to vocational guidance, the analysis of the preparedness of HR experts for the provision of vocational guidance is inevitable.

Looking to the position of human resource management within the system of the study fields of higher education in Lithuania, human resource management is not regarded as an separate field or branch of science and makes a part of management science studies. We can assume, that it indicates certain lagging behind of human resource management studies in Lithuania comparing to other countries, where this management area has developed into an independent branch of science, including active research, defence of doctoral theses and award of doctoral degrees in human resource management.

In Lithuania, human resource management studies makes part of corporate management studies (code S190) in the study field Management and Administration. In other words, human resource management studies are mainly focused on individual companies, while the studies of human resource management on the sectoral, regional or national levels remain ignored.

Deeper analysis of study programmes of human resources management reveals, that at present, eight Lithuanian higher education institutions train specialists more or less related to human resource management.

**Table No. 6. Human resource management programmes of Lithuanian higher education institutions**

Item	Education institution	Programme title	Degree awarded
1.	Vytautas Magnus university	Career and Career Guidance	Bachelor Degree in Andragogy; Bachelor Degree in Educational Sciences before 2010
		Career Designing	Master Degree in Educational Sciences;
2.	Šiauliai University	Career Education	Master Degree in Educational Sciences
			Master Degree in Human Resource Management (qualification description is being prepared)
3.	Lithuanian University of Education Sciences	Career Designing	Master Degree in Career Education; Master degree in Educational Sciences before 2010
4.	Klaipėda University	Career Designing	Master Degree in Career Education; Master degree in Educational Sciences before 2010
5.	Mykolas Romeris University	Leadership and Change Management	Master Degree in Human Resource Management; (Master Degree in Public Administration before 2010)
6.	The General Jonas Žemaitis Military Academy of Lithuania	Personnel Management	Bachelor in Public Administration
		Human Resource Management	Master Degree in Human Resource Management (qualification description is being prepared); Master Degree in Management and Business Administration before 2010
7.	Kaunas University of Technology	Strategic Leadership	Master Degree in Human Resource Management
		Human Resource Management	Bachelor Degree in Human Resource Management
		Human Resource Management	Master Degree in Human Resource Management
		Leadership	Bachelor Degree in Human Resource Management
8.	Vilnius University	Human Resource Management	Master Degree in Human Resource Management (Master Degree in Management and Business Administration before 2010)



In terms of the level of provided degrees and qualifications, universities provide study programmes on the (1) bachelor and (2) master level. However, degrees related to vocational guidance are awarded in different areas, including educational sciences, career education or human resource management.

The analysis of study programmes and their descriptions shows that graduates of educational sciences are qualified for work in: (a) a number of education institutions and their management institutions; (b) labour market services; (c) labour exchange offices; (d) vocational and career guidance centres; and (e) staff training and career guidance services of enterprises, firms, companies and other organisations.

Definitely, experts of this area are prepared to engage in vocational guidance. The negative aspect is that the possibilities of using them in companies are highly limited, as there are no large companies in Lithuania which could afford to have their own staff training and vocational guidance centres. Even the major Lithuanian concerns cannot afford experts with narrow specialisation in their HR units due to high costs, as modern HR management units perform a wide range of functions requiring knowledge in a number of human resource management areas.

A similar situation is with career designing experts, who, during their studies, gain fundamental theoretical knowledge in educational sciences, career designing and psychology, required for human resource development in education and labour market systems.

Admittedly, these professionals are very valued by specialised companies engaged in recruitment and selection of employees and providing services to a number of other companies in the country, because these experts are trained to assess personal skills and abilities by using descriptions, tests, surveys, evaluation scales and other methods. In practice, even large industrial companies hire specialised companies for staff selection, because this is more cost-effective than in the case of own experts within the HR management structure.

It may be reasonably assumed that, depending on financial possibilities, the needs of businesses may be best answered by professionals who completed study programmes of human resource management and handling, personnel management and strategic leadership. Yet, these programmes do not cover vocational guidance. This suggests that it would be reasonable to integrate the course of vocational guidance in human resource management programmes in order to balance the supply of and demand for workers on the labour market, as the availability of vocational guidance experts in companies and organisations would allow for further development in the area of vocational guidance.

#### Conclusions and Recommendations

Lithuanian companies and organisations still have a poor understanding of their position, role and functions in the process and within the framework of career choice and vocational guidance and the impact on the formation, accumulation and effective use of the human capital.

Unless a number of companies and organisations change their focus and approach to the planning of their staffing needs and the stern attitude to vocational guidance, it is quite unlikely that the situation on the Lithuanian labour market will develop in a positive way, structural unemployment will decrease on the domestic labour market, the rate of youth employment and the efficiency of the use of human capital will increase and the state will comply with its international obligations.

The research reveals that economic entities, which should be the most concerned about the sufficient supply of professionals on the labour market, fail to take any part in vocational guidance or their involvement is very limited and episodic. It also shows that economic entities neither implement any vocational guidance programmes nor allocate any funds for their implementation.

Current gap between the current supply of and demand for occupations on the labour market is caused by axiological differences manifested in the discrepancies between a personal choice and learning of a given occupation and employers' needs and expectations rather than by the human factor or intellectual, physical or physiological possibilities of following occupations that are in demand on the labour market.

In order to ensure that economic entities take a different approach to vocational guidance, it is important that companies and organisations fully understand the advantages of efficient vocational guidance. Furthermore, it would be reasonable to integrate the course of vocational guidance in human resource management programmes in order to balance the supply of and demand for workers on the labour market, as the availability of vocational guidance experts in companies and organisations would allow for further development in the area of vocational guidance.

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# PROVIDING SERVICE QUALITY IN EXCLUSIVE RESTAURANTS: A SURVEY OF DINERS IN THREE RESTAURANTS AT A GAUTENG CASINO COMPLEX

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## ABSTRACT

A number of studies have established that service quality has a direct impact on a restaurant's profitability. This study made an empirical assessment of customers' perceptions and expectations of service to measure service quality in three restaurants in a casino complex in Gauteng Province in South Africa. The research helped to assess the levels of customer satisfaction with service provision in three restaurants and identified factors that contribute to customer satisfaction and dissatisfaction; It also determined the current status of service and compared and ranked three restaurants service provision. Another importance was the aiding in the establishment of customer service standards for the restaurants concerned. The tipping of waitrons was also used as an indicator of customer satisfaction with service provision in general. A three-column SERVQUAL instrument was used together with part of the Fishbein model. The study was able to firstly determine and analyze service gaps that exist in the service delivery procedure to measure service quality as well as general customer satisfaction and secondly, to evaluate customers' attitudes towards the service measure attributes of similar restaurants in the same location. The findings offer implications to improve service quality in restaurant business in general.

**Keywords:** *Service quality, tipping, restaurants, SERVQUAL, Fishbein model.*

## INTRODUCTION

In the last few decades, service quality and customer satisfaction have become critically important aspects for restaurant owners and managers to consider if they are serious about expanding our even keeping an existing business. In South Africa there are a number of restaurant chains as well as unique restaurants that resemble what were previously referred to as steakhouses in the period 1960-1980. Hsieh & WU (2007:1) maintain that service quality is a server's endeavour that is observable by a diner throughout a service encounter. This will ultimately influence the outcome of the service. When we speak of the quality of service executed this refers to the promptness, friendliness or attentiveness of

the person who is serving (Bodvarsson et al., 2003). Since competition for business is becoming increasingly greater, it is especially managers who try to maintain existing customers while seeking to attract new ones. The aspect which attracts customers the most is service quality excellence.

The dining experience comprises tangible and intangible elements. The tangible elements can easily be improved, but the intangible aspects of restaurant service require great attention. Researcher indicates that the ability to deliver high quality service provision will provide long-term financial viability and lead to more sustainable business success (Keiser, 1988). Researchers have postulated that there exists a very strong relationship between customer satisfaction and loyalty to restaurants (Szymanski and Henard, 2001) and the notion that service quality excellence impacts business profits has been apparent for a number of years (Baker & Crompton, 2000; Zeithaml & Bitner, 2000). A study conducted by Bodvarsson et al. demonstrates that predicted service quality significantly affects the size of a tip that a waiter obtains (Bodvarsson et al. 2003; Parrett, 2006). Tipping is considered to be an efficient way of rewarding workers for good work and serves as a major incentive to encourage service quality excellence (Lynn et al., 1993:478; Lynn 2003:140). Consequently, tipping can be used as an indicator of customer satisfaction. This is directly linked to the idea of superior quality of service which is undoubtedly an aspect that can add value to a restaurant's product offerings and ultimately impacts on a restaurant's bottom-line as it leads to customer loyalty via repeat visits (Lee, Barket, & Kandampully, 2003). The key purpose of this study was primarily to understand the restaurants' levels of service quality as per customers' perceptions of service delivered, the customers' satisfaction levels with service provision, and thirdly the customers' assessment regarding other restaurants in the same location. The findings of the research were anticipated to provide useful service quality provision suggestions for the restaurants involved.

## **MOTIVATION FOR THE STUDY AND RESTAURANT BACKGROUND**

The research was conducted in order to:

1. assess the levels of customer satisfaction with service provision in three restaurants;
2. identify factors that contribute to customer satisfaction and dissatisfaction;
3. determine the current status of service;
4. compare and rank three restaurants service provision;
5. help establish customer service standards for the restaurants concerned.

There were three restaurants involved in the study. The largest restaurant in the study case, which shall be termed 'X', is a privately owned franchise operation which has a large number of restaurants in operation in Gauteng. This operation has 364 seat capacity and 12 waitrons, 15 cooks/chefs, 4 cleaning

staff, 2 front of house managers and 3 floor managers who may not all work at the same time, but rather in varying shifts. The cuisine served could be considered to be wholesome family meals and the menu has a large variety of dishes. Items on the menu range from pizzas, salads, and farinaceous dishes to antipasto, meat, fish and vegetarian fare. There is also a selection of starters and desserts to choose from. Drinks include coffees, teas, soft drinks and alcoholic beverages. The targeted customers include casino walk-ins, families and friends going out for either lunch or dinner, and from time-to-time, special events such as engagement parties, birthday parties etc, for which an upstairs 'private area' seating for 120 is available. This establishment also prepares special breakfast menus for Saturday mornings. This popular brand name family restaurant has appealing furnishings that create a homely ambience and it is easily accessible and pleasant to be in. It is a casual to smart dress code restaurant.

Restaurant 'Y' has a capacity of 188, with 9 waitrons -4 of whom are seasonal and 3 cooks/chefs. It staffs 3 cleaning staff, 1 front of house manager and 2 floor managers and 4 cleaning staff. Restaurant 'Z' has a capacity of 165, with 5 fulltime waitrons and 5 seasonal waitrons. It has 2 chefs/cooks, 1 front of house manager and 1 floor manager as well as 4 cleaning staff. Both restaurants 'Y' and 'Z' are privately owned and not part of any franchise operation and only a short distance from restaurant 'X' both offer various styles of steak and other meals in what are seemingly silver-service cuisine set-ups with high back chairs and stylish candle holders and wine glasses, for example. They would be considered to be luxury restaurants. The menus both include appetizers, soups, antipasto, salads, entrées (steaks), dessert, and a selection of soft drinks and alcoholic beverages. In each of the restaurants, 'X', 'Y' and 'Z', the customers can select whatever they wish to order and thus can create their own series of courses which will comprise their ultimate meal. The style of the decor in these restaurants makes diners feel they should dress up to eat there, although there were a number of casually dressed diners present at the times the research was conducted.

This study will hopefully serve as a practical guideline for the managers of the three restaurants under review, especially the floor managers and waitrons. The outcome of this study will be to further develop the service quality provision of staff in order to satisfy customers' needs and expectations so as to maintain customer loyalty and enhance profits.

## LITERATURE REVIEW

Research clearly shows that it costs a lot more to attract new customers to a restaurant, than to retain existing customers (Oliver, 1999; Rosenberg & Czepiel, 1983). Restaurants in today's food and beverage industry are thus required to satisfy customers through continuous service quality excellence, and indeed, should do so in any event (Gabbie & O'Neil, 1996). In fact, customers need to be delighted with the service they obtain. Service quality means the difference between the customers' expectations of

service delivery and their perceived service. The service provided to customers by a restaurant has a huge and immediate impact on the company's profits since it is directly related to customers' perceptions of services rendered and to general satisfaction. Repeat business and customer loyalty demand service quality excellence (Zeithaml & Bitner, 2000). What is tricky to determine is which intangible characteristics are most important to a customer (Berry & Parasuraman, 1991).

The research aimed at measuring service quality through analysing the tipping of waitrons by customers as well as by attempting to comprehend the perceptions of customers concerning the service provided. Customer expectation refers to uncontrollable factors including past experiences, personal needs, word of mouth, and external communication about service. Customer perception refers to customers' feelings of pleasure / displeasure or the reaction of the customers' in relation to the performance of the restaurant staff in satisfying their needs.

The literature suggests that there is a strong correlation between tipping amounts indicating customer satisfaction and repeat business by satisfied customers which ultimately leads to enhanced profitability for a restaurant business (Azar, 2007; Parrett, 2006; Getty & Getty, 2003; Tsang & Qu, 2000). Lynn et al. (1993), considers tipping to be an almost "pervasive consumer behaviour" of significant economic value. As stated earlier, it is vital for a restaurant operation to fully comprehend its customers' attitudes towards service quality provision, assuming that this is in fact happening (Kandampully, 1997). The customers' attitudes concerning service provision cannot be measured simultaneously on SERVQUALS five service measure attributes. What can be used here is the Fishbein model.

## USING SERVQUAL

The perceptions of the customers in the service process is crucially important as the business needs to be aware if there is any discrepancy between perceived service and that expected by the customers (Parasuraman, Zeithaml, & Berry, 1985). Where there is a clear incongruity this is generally referred to as the service "gap" (Oliver, 1981). Parasuraman, Zeithaml, & Berry, (1985), developed the SERVQUAL model which is still widely used today to evaluate service quality. The SERVQUAL (Gap model) is an instrument used for measuring service quality, in terms of the discrepancy between customers' expectations regarding service offered and the perception of the service received by them; Respondents are required to answer questions about both their expectation and their perception.

Parasuraman, Zeithaml, & Berry broke service quality down into five dimensions, namely. Reliability, Responsiveness, Tangibles, Assurance and Empathy. They evaluated service quality by subtracting a customer's score that is based on a perception of the service provider's performance, from the customer's expected score. Where customers were satisfied with service quality provision, there has

been higher service quality which resulted in higher satisfaction levels. The dimension of Reliability relates to what is considered to be accurate and highly dependable service provision. Responsiveness relates to the desire of a server to provide prompt service to the customer. The Tangible dimension relates to the equipment used, physical facilities as well as the appearance of the waitrons, for example (waitron is a non-gender specific term for waiter or waitress). Assurance related to the product knowledge of the waitrons, their welcoming attitudes, as well as their ability to be trusted. The Empathy dimension relates to their ability to come across as genuinely caring for the needs of the customers. The scores obtained by using the SERVQUAL model thus represent the variation between expected and perceived service quality. Literature supports the use of SERVQUAL (Gap model) as a valid and reliable measure of the quality of the service for food and beverage operations, for example (Stevens, Knutson, & Patton, 1995; Nel & Pitt, 1993).

## THE FISHBEIN MODEL

Ajzen and Fishbein, (1980), developed a model which is based on the hypothesis that a customers' behaviours are the result of a cognitive process in which they systematically processes all accessible information. This information describes beliefs, attitudes and behaviour for a wide range of attitude measurement. Consequently by using both SERVQUAL and the Fishbein model to evaluate service quality provision levels and satisfaction, the customers' attitudes can be assessed as an evaluation of a psychological item which is encapsulated in five attributes namely, good or bad, harmful or beneficial, pleasant or unpleasant, likeable, dislikeable (Fishbein, 2000). Such a methodology can help in understanding the attitudes of customers towards a restaurant and also allows for the measurement of these qualities in different restaurants.

The beliefs, attitudes and behaviours of customers are evaluated using the Fishbein Model. Beliefs refers to the knowledge that a customer has concerning objects, their attributes, and their benefits. The objects would include the products (food and beverage), people (restaurant staff), companies, and things about which people hold beliefs and attitudes such as quality service provision. The attributes are the characteristics or features than an object may or may not possess. The benefits include all the positive outcomes that attributes might provide to the customer such as enjoyment of food, relaxing ambience, quality service, value for money etc. It is important to realize that people buy a whole lot of benefits, not product attributes.

The cognitive component of the tripartite model is generally assessed by using a version of the multi-attribute or Fishbein model where:

$A_o = \sum B_i E_i$  and where:  $A_o$  = the overall attitude toward object o

$B_i$  = the strength of the belief that object o has some particular attribute i



$E_i$  = the evaluation of the goodness or badness of attribute  $i$

In this model, evaluative component consequently serves as something of a weight. The Fishbein model is well utilised by consumer researchers and greatly assists to measure restaurant customers' attitudes towards the SERVQUAL's five attributes. It is nonetheless not necessary to adopt its mathematical equation for the research. The model was modified in this research using Solomon's theory (2002) to suit the requirements of the study, in that consumer behavior is a study of all the processes involved when customers or groups of customers, choose to buy and use, services, ideas, or experiences to satisfy their particular needs and desires. The 'exchange' aspect when a customer goes to a restaurant, and when they are given and receive something of value, is a fundamental part of marketing. Consumer behavior thus involves a wide variety of participants. Customers also influence on the buying processes as they tell friends and family about their varied experiences when dining out.

In another model as developed by Bodvarsson et al (1997), it is the waitrons who are requested to report on tips received by them for service rendered to diners as the latter tend to exaggerate on this aspect. Bodvarsson et al.'s suggest that there is a strong two-way causal relationship between the diners' experience of service quality provision and the percentage of tips received. The waitrons' expectations of tips to be received has an influence on the quality of service which is supplied and the service quality provision also influences the amount of tip that is dispensed (Bodvarsson et al., 2003).

## TIPPING

Tipping is a complimentary payment for service rendered in the context of restaurants by customers to waiters, in particular, but is not exclusive to hospitality *per se*. Tipping is generally considered to be a social norm and many diners feel a need to tip because others around them are tipping tip and as such it is expected (Azar, 2005). If diners do not tip, those with them may perceive them to be stingy and they consequently feel pressurised to tip so that those accompanying them will respect them more. Generally speaking then, tipping may be regarded as a social convention that most customers in South Africa would adhere to (Bodvarsson et al., 2003). In a survey conducted by Azar (2007) to assess whether repeating diners' tips were more sensitive to service quality provision than tips of non-repeating diners, the findings suggested that the tips of repeating diners are less sensitive to service quality provision than the tips of non-repeating diners. Consequently we may say that future service provision as a motivation for customers to tip is not supported by the literature and therefore only social norms appear to motivate tipping patterns. Parrett's (2006) conducted a study in Virginia in the United States to address the issue of why diners tip and how much they tip. The results demonstrated that age as a control variable, had a marked effect on tip size. Older people tend to tip more as well as more frequently than younger people (Parrett, 2006). Parrett also found that diners who pay with cash

tend to tip more than diners who pay using credit cards. Furthermore, when there were less than 3 diners at a table, tip size decreased; while for tables of more than three diners, tip size increased. Sill (2004) states that service is very important and restaurants should not over-promise and under-deliver. Research in the United States has also indicated that Blacks are less familiar than Whites with tipping norms and this suggests that the Black-White differences in tipping, can be significantly reduced by making customers aware of tipping norms (Lynn, 2006 a).

## **METHODOLOGY**

The methodology was mixed, and was thus both quantitative and qualitative in nature.

The quantitative data was analytical and it allowed the researcher to arrive at a universal statement. A survey described and explained tipping issues and had a quantitative analysis and questionnaires were utilised.

The qualitative methodology used aim was detail and depth of understanding to demonstrate and understand possibilities, but not necessarily on how frequently they occur but it produced descriptive data, which was generally the participants' own words pertaining to their experience or perception of service quality provision. The researcher was thus more concerned with understanding rather than explaining. He was seeking novel or unanticipated findings and the theme of the research was essentially phenomenological where the participants' perspectives were the empirical point of departure. This was basically a focus on real-life experiences. The researcher was able to interpret and describe the actions of various people, including employees and customers. The SERVQUAL instrument as well as the theory of Ajzen & Fishbein, were adopted to achieve some of the research objectives. In addition a seven-item, five-point Likert scale (Question 1) was used to measure the practice of tipping as a social rule in the area. The SERVQUAL was used to measure customer satisfaction with service quality provision, while the Fishbein model was used for multi-attribute attitude assessment.

## **SERVQUAL RESEARCH**

The greatest part of the survey was designed on a three-column approach and the five attributes as defined in the SERVQUAL model as postulated by Parasuraman, Zeithaml and Berry (1988). In this approach, a brainstorming session was conducted and the selected group of five employees from the different restaurants met for just less than two hours to discuss and define the variables/factors for each of the five attributes as defined in the SERVQUAL (also known as the Gap Model) adopted. Each of the appointed members were in supervisory positions as front-line servers. As a result of the brainstorming meeting, 35 variables were created and used to illustrate and measure an attribute of the SERVQUAL

model. The factors to be evaluated were included in the survey (Questions 1-5) and each factor was measured on a scale of 1 (extremely low) to 10 (extremely high). The second part of the survey was designed to evaluate SERVQUAL's five service measure attributes for the respective restaurants. The questionnaire was pre-tested with a convenience sample of approximately 15 customers using a collaborative participant pre-testing method. Data for the main study was collected during June and July 2012 by means of a self-administered survey. Customers were approached by the researcher/s after dining at either restaurant X, Y or Z. and after they had paid their bills.

## **SAMPLE USED**

Since it is easier to study a representative sample of a population, rather than an entire population, a sample was used. Sampling was thus used to select a group with the view to determine the characteristics of a large group (the population). The sample should display the same characteristics as the population. Stoker's sample size (1985) as quoted in De Vos et al (2002), suggests that from a population of 1000, 14% should be used thus comprising 140 respondents. The researcher opted to use 200 respondents as an appropriate sample size. The target sample for the proposed study consisted of adult diners (>18 years of age) at three restaurant, X, Y and Z, in a casino complex in Gauteng province, South Africa. The units of analysis were thus the individual adult diners to the restaurants in question and they were a segment of the population that is representative of the entire population (Chase, 1967). The respondents were stratified according to age and randomly selected on the basis of convenience sampling (accidental sampling). Random selection means selecting a sample in such a way that each member of the population has an equal chance to be selected. In a random sample then, the researcher assumes that the characteristics of the sample approximate those of the general population. This approach takes people or other units that are readily available, such as those that arrive on the scene by simple happenstance. It contributes towards validity and reliability and to a large degree eliminates biases. Customers who were previously allowed to express an opinion were eliminated from the study on subsequent arrivals at the restaurants in question.

This method was used as it is similar to that used by Mukherjee and Nath (2005) for similar studies on service quality. This study aimed to achieve a minimum sample size of 200 respondents. The realised sample size of the study amounted to 212 questionnaires, with a favourable response rate of 94.33%. A total of 200 questionnaires were analysed. The survey was distributed using a person-to-person method to individual restaurant customers as they left either restaurant X, Y or Z. They were given the survey on a hard board with a pen attached and a gift pack comprising of a box of Belgian chocolates. The researcher provided guidelines and instructions on how to respond to the survey questions. Data

was gathered over a nine day period and 212 surveys were completed of which 200 were used. Unusable surveys were eliminated.

**Table 1.**

**Demographic Profile of the Survey Respondents (n =200)**

<b>Gender</b>	<b>Male</b>	<b>Female</b>
n =200	107 53.5%	93 46.5%
Percentage		
<b>Ages of respondents</b>		
18 – 25 years	7	12
26 – 35 years	12	36
36 – 45 years	42	19
46 – 55 years	21	13
56 – 65 years	23	9
66 - 99 years	2	4
<b>Restaurants</b>		
Usable Samples		
Restaurant X	43	
Restaurant Y	33	
Restaurant Z	31	

## THE SERVICE GAPS

The SERVQUAL of Parasuraman et al (1988), was used to compare customers' expectations with their experiences so as to demonstrate where service delivery has either strengths or weaknesses. As in most Gaps Theory research, the clearest gap, Gap 1, was the one between customers' expectations of service provision and their perceptions of the service provision that they actually received in the restaurants.

This was the most critical gap that required study by making using of a three-column SERVQUAL. Gap 2 was the discrepancy between management assumptions that customers require fast service and service delivery. Gap 3 was the discrepancy between management targets of food been delivered within ten minutes of an order being placed and actual service provision. Gap 4 related to the discrepancy between the service quality provision as evaluated by customers' attitudes on the service attributes amongst each of the three restaurants. Gap 5 related to general perceptions of poor service quality provision.

It is important to bear in mind that service quality provision is by its very nature a highly subjective concept and with this in mind, what the customers' think about service quality provision is essential to success for any food and beverage operation. Customer satisfaction clearly results from a service

encounter and by assessing if expectations are met when compared to actual performance in a restaurant. The service quality would relate to how a customer feels about a restaurant's excellent service provision or otherwise. Value would relate to how a customer relates the quality of a dining experience with the price paid and if it was 'good value for money' or if there is some psychological benefit such as relaxation away from an otherwise humdrum daily routine.

## THE SURVEY TOOL

Voluntary Survey: RESTAURANT   X       Y       Z   (circle establishment- researcher will assist.  
Respondent number: \_\_\_\_\_ (number provided by researcher/s)

Dear patron

In an effort to improve service quality levels in restaurants in general, kindly complete the survey as accurately and honestly as possible. Thank you for your willingness to assist in this research initiative. The purpose of the survey is to determine the levels of service quality provision in each of three restaurants and some aspects are related to tipping of waitrons. The survey should take about seven minutes to finish. You will remain anonymous throughout this highly confidential survey. Answers provided will be utilised only for research on service quality provision. Answers cannot be right or wrong. Answer by inserting a cross (X) in the relevant block.

Please indicate your age:

18 - 25	
26 - 35	
36 - 45	
46 - 55	
56 - 65	
66 - 99	

Your gender (place an X on your selection)

Male	Female
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Your race

Black	White	Coloured	Indian
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### Question 1.

Kindly consider each statement below carefully and indicate the extent to which you

agree or disagree with each one. (Please mark with an (X) 1 for “strongly agree”, 5 for “strongly disagree” or select an option in-between).

	Extent of response	Strongly agree	Agree	Neutral	Disagree	Strongly disagree
1.1	Whenever I eat out my tipping is a unique amount	1	2	3	4	5
1.2	I tip varying amounts, not only the accepted 10%	1	2	3	4	5
1.3	A standard tip percentage is important	1	2	3	4	5
1.4	I tip based on quality service provision	1	2	3	4	5
1.5	I decide what to tip before I order	1	2	3	4	5
1.6	I increase my tip size if the waitron is presentable or good looking	1	2	3	4	5
1.7	I tip all waitrons' the same amount at all restaurants I visit	1	2	3	4	5
1.8	I tip more if the waitron comes across as caring	1	2	3	4	5

## Question 2.

Service quality provision: Read each statement carefully and then indicate the extent to which you agree or disagree with each. (Please mark (X) 1 for “strongly agree”, 5 for “strongly disagree” or select an option in-between.)

	Extent of response	Strongly agree	Agree	Neutral	Disagree	Strongly disagree
2.1	The waitron immediately attended to me	1	2	3	4	5
2.2	Waitrons were in close proximity	1	2	3	4	5
2.3	My order was correctly provided	1	2	3	4	5
2.4	Service delivery was prompt	1	2	3	4	5
2.5	The ambience of the restaurant is inviting	1	2	3	4	5
2.6	Relaxing background music was available	1	2	3	4	5
2.7	Waitrons were neatly attired	1	2	3	4	5
2.8	Place settings were correct	1	2	3	4	5

	Extent of response	Strongly agree	Agree	Neutral	Disagree	Strongly disagree
2.9	The food was tasty	1	2	3	4	5
2.10	The restaurant was very noisy	1	2	3	4	5

**Question 3.**

Tipping by customer: Read each statement carefully and then indicate the extent to which you agree or disagree with each statement. (Please mark (X) 1 for “strongly agree”, 5 for “strongly disagree” or select an option in-between.)

	Extent of response	Strongly agree	Agree	Neutral	Disagree	Strongly disagree
3.1	I was brought up to tip	1	2	3	4	5
3.2	I decide how much I will tip if at all	1	2	3	4	5
3.3	My tip is always 10% of the total bill even if service is poor	1	2	3	4	5
3.4	I will not tip if service is poor	1	2	3	4	5
3.5	I am influenced by my friends when I decide how much to tip	1	2	3	4	5
3.6	I do normally ever tip	1	2	3	4	5
3.7	My tip size depends on service provision	1	2	3	4	5
3.8	Money is tight and I cannot afford to tip	1	2	3	4	5
3.9	If waitrons are polite I tip more	1	2	3	4	5
3.10	I tip good looking waitrons more	1	2	3	4	5
3.11	Waitrons whom I know get greater tips	1	2	3	4	5
3.12	I tip females more	1	2	3	4	5
3.13	I don't tip unprofessional waitrons	1	2	3	4	5
3.14	My tip size depends on my total dining experience.	1	2	3	4	5

**Question 4.** Which methods of payment did you utilise? (*Please select only one.*)

Credit card	1
Debit card	2
Cash	3
Other e.g. cheque	4

**Question 5.**

5.1 What was the total bill? R \_\_\_\_\_

5.2. How much did you tip the waitron? R \_\_\_\_\_

5.3 I will / **will not** recommend this establishment (delete whichever does not apply)

Part 2 of the Survey evaluates SERVQUAL attributes as well as tip size in Tables 1 and 2 respectively.

At the end of the survey, customers could make general comments on any aspect.

## EVALUATION OF THE 5 SERVQUAL (GAP) DIMENSIONS FOR THE RESPECTIVE RESTAURANTS.

In this part of the survey, there were two questions. Customers were required to give a score on a scale (1 to 10) on their expectation from the restaurant about each attribute so as to gauge their reflection on the service quality provision experienced by them. Question two (Table 1) was designed to measure the importance of the five attributes for multi-attribute attitude measurement. An aggregated scale measurement, which is considered to be valid, was used to measure the reliability of the methods of data collection. Respondents were requested to rate the five attributes based on their perceived importance. Table 2 measured tipping of waitrons.

### Part 2.

*Table 2: Service evaluation (SERVQUAL) factors as identified by 'brainstorm' group and univariate descriptive statistics*

	<i>n</i>	<i>mean</i>	<i>Standard deviation</i>
<b>A. Service Measure Dimension:</b>			
<b>Reliability</b>			
<b>Service Evaluation Factors</b>			
(1) Food that was served was as requested	200	4.22	0.76
(2) Food looked appetising	200	4.32	0.65
(3) Food was very tasty	200	4.14	0.74
(4) Waitrons were efficient	200	4.24	0.80



<b>B. Service Measure Dimension: Responsiveness Service Evaluation Factors</b>			
(5) Waitrons were well trained	198	4.55	0.62
(6) Incorrect orders were immediately replaced	200	4.34	0.66
(7) Waitrons were on hand	198	4.38	0.64
(8) Food was served in under 15 minutes	193	4.46	0.81
(9) Waitrons assisted each other	192	4.37	0.63
<b>C. Service Measure Dimension: Assurance Service Evaluation Factors</b>			
(10) Waitrons asked about service regularly	200	4.38	0.58
(11) Waitrons knew what menu items included	200	4.44	0.80
(12) Same meal selections were identical for different customers	200	3.36	1.11
(13) Service was generally good	195	4.95	0.95
(14) The bill was accurate	200	4.03	0.93
<b>D. Service Measure Dimension: Empathy Service Evaluation Factors</b>			
(15) Staff welcomed customers	198	4.38	0.62
(16) Staff were courteous in all dealings	196	4.55	0.79
(17) Staff were handled well by managers	200	4.23	0.80
(18) Staff were sincerely sorry for errors made	200	4.18	0.81
<b>E. Service Measure Dimension: Tangibles Service Evaluation Factors</b>			
(19) Dining area was clean and presentable	200	4.24	0.82
(20) Toilets were clean	198	4.55	0.62
(21) Furnishings were appealing	190	4.22	0.73
(22) Menus were easy to understand	194	4.13	0.72
(23) Seats were comfortable	198	4.25	0.83
(24) Customers felt safe in the restaurant	200	4.38	0.65
(25) Staff were appropriately and neatly attired	200	4.21	0.71

“Strongly agree” was coded as 1, “Agree” as 2, “Neutral” as 3, “Disagree” as 4 and “Strongly disagree” as 5. The lower the mean score for an item, the stronger customers’ agreement with that item. The items in the scale were all reverse scored and thus the lower the mean score for an item, the lower the customer’s level of agreement with the item. Since the items all tend to fall between 4 and 5, this indicates that the customers’ have a strong level of agreement with the items in the scale. Where there is a minor standard deviation (relative to that of other items) this indicates that customers tended to

answer the item in a similar fashion. All the items have relatively low standard deviations which mean that all the customers tended to concur in their responses to the questions posed.

**Table 3. SERVQUAL Attribute evaluation factors**

Service Attribute Measured	Evaluation factors for service provision	Perceived customer service provision rating	Tolerable or minimum service provision rating	Customers desired service provision rating
<b>Reliability</b> (relates to what is considered to be accurate and highly dependable service provision)	1	8.56	8.36	8.70
	2	8.98	8.77	8.86
	3	9.20	8.18	8.66
	4	8.34	8.44	8.65
		8.44	7.90	8.90
<b>Responsiveness</b> (relates to the desire of a server to provide prompt service)	5	8.32	8.26	9.10
	6	8.46	8.55	8.55
	7	8.31	8.45	8.50
	8	7.87	7.66	8.00
	9	8.55	8.40	8.55
<b>Assurance</b> (relates to the product knowledge)	10	7.56	8.12	9.08
	11	8.33	8.35	8.88
	12	8.49	8.55	8.67
	13	9.08	8.00	8.88
	14	8.89	9.10	9.60
<b>Empathy</b> (relates to staff ability to come across as genuinely caring for the needs of the customers)	15	8.80	7.77	8.50
	16	8.56	7.88	7.90
	17	8.70	8.34	8.89
	18	7.60	7.25	8.07
<b>Tangibles</b> (relates to the equipment used, physical facilities as well as the appearance of the staff)	19	8.47	8.24	8.87
	20	7.90	8.00	8.33
	21	8.05	8.35	8.36
	22	7.68	8.08	8.70
	23	7.33	8.77	8.62
	24	8.33	8.12	8.79
	25	7.85	7.88	8.62

#### Part 2 of survey

**Table 4: Univariate descriptive statistics for tipping of waitrons**

Item	<i>n</i>	<i>Mean</i>	<i>Standard deviation</i>
<b>Tipping variance</b>			
Whenever I eat out my tipping is a unique amount	200	4.21	0.76
I tip varying amounts, not only the accepted 10%	200	3.88	0.89
A standard tip percentage is important	197	3.57	1.27
I tip based on quality service provision	200	3.30	1.43
I decide what to tip before I order	199	3.19	1.30
I increase my tip size if the waitron is presentable or good looking	200	4.11	0.99
I tip all waitrons' the same amount at all restaurants I visit	200	3.46	1.08
I tip more if the waitron comes across as caring	200	4.23	0.79

An answer of “Strongly agree” was coded as 1, “Agree” as 2, “Neutral” as 3, “Disagree” as 4 and “Strongly disagree” as 5. It is evident that where there is a lower mean score for an item, the stronger the customer’s ranking of agreement with that item. Where there is a large standard deviation this indicates that customers tended to answer the item in somewhat of a unique way. However, all of the items have relatively high standard deviations, which indicate that customers were inclined to be at variance in their answers to the question posed.

**Table 5: Univariate descriptive statistics waitron efficiency and ambience**

Item	N	Mean	Standard deviation
The waitron immediately attended to me	200	4.12	0.98
Waitrons were in close proximity	200	4.25	0.86
My order was correctly provided	200	3.20	1.28
Service delivery was prompt	200	3.99	1.12
The ambience of the restaurant is inviting	200	4.04	0.87
Relaxing background music was available	200	4.01	0.86
Waitrons were neatly attired	200	3.96	1.06
Place settings were correct	196	4.14	0.99
The food was tasty	200	3.77	1.13
The restaurant was very noisy	199	4.33	0.52

A response of “Strongly agree” was coded as 1, “Agree” as 2, “Neutral” as 3, “Disagree” as 4 and “Strongly disagree” as 5. It is apparent that the lower the mean score for an item, the stronger the customers’ levels of agreement with that particular item. Where there is a minor standard deviation (relative to that of other items) this indicates that customers tended to answer the particular question in about the same way. These items have relatively low standard deviations and this means that customers tended to agree in their responses to the question posed. All of the 200 customers answered the payment mode- question 4. Of these, 165 or 82.5% paid by means of credit card. 21 or 10.5% paid by debit card. 5 or 2.5% paid cash and 9 or 4.5% paid by other such as cheque.

Some studies on tipping in the United States have examined the possibility that race differences in tipping vary with the race of the waitron (Lynn, et. al. 2006; Willis, 2003). In each of these studies, the interaction between customer and waitron race was not significant. In this study tipping by race, produced an interesting finding. Blacks left smaller average restaurant tips than Whites, suggesting

that Blacks tip less than Whites do even when provided comparable levels of service. It did not make a difference that the waitron was black. It appears that Blacks do not know that it is customary to tip 10 percent of the bill size in South African restaurants.

A five point Likert scale was used to measure the customers' tipping behaviour at the restaurants. This measure included 14 Likert scale statements of which the scale points were labelled: 1 = Strongly agree, 2 = Agree, 3 = Neutral, 4 = Disagree and 5 = Strongly disagree. The Cronbach alpha coefficient for the 14 items was 0.84 indicating internal consistency reliability. In restaurant X, in which tip size was assessed, the results indicate that the smallest bill size that customers received was R18,50 and the largest bill size was R2656.00. The average bill size of each of the three establishments is R259.70 and the bill size variable has a standard deviation of 87.44. The total number of bills processed was 201 and the average tip size for credit card transactions was R20.00. Cash tips were pocketed directly by the waitrons and there is no record for such. Minimum tip size was R2.50 and maximum was R35.00. The standard deviation was 4.77 and the mean was R15.89. Over a three and a half week period (01 April 2012 to 25 April 2012) at restaurant X, the employee tip report indicates that a directly tipped total of R27327.64 was gained by a total of 12 waitrons. This gives an average tip gain over the period for each waitron of R2277.30. By category of sales at each of the three restaurants, the largest tips were obtained at dinner times, followed by lunch and then breakfast. The highest tip amounts were for tables of more than four guests and the least at tables with only one guest. Virtually all of the waitrons were black employees and 70% of these were women. The largest tips were paid to men.

A multiple item rating scale was utilised to assess various determinants of service quality provision the restaurants X, Y and Z. This encompassed ten Likert scale items. The scale points were categorized as follows: 1 = Strongly agree, 2 = Agree, 3 = Neutral, 4 = Disagree and 5 = Strongly disagree. The Cronbach alpha coefficient for the ten items was 0.87, which indicates that there is acceptable internal consistency reliability. Higher overall scores indicated a higher level of service quality provision experienced by customers.

## FINDINGS

The most stated gaps in the study related to "waitron responsiveness", "inadequate assurance" and "clean ablution facilities". In each case customers felt more quality was required. The key demographic profile of the survey respondents was males who especially like to visit Restaurant X. Most customers are between 36 to 45 years of age (21%). while customers between 56 and 65 years of age (11.5%-all in that age category), patronised Restaurant X. It was clear from the research that the desired satisfaction levels of expected service provision the customers' hoped to receive, was predominantly from Restaurant X. The least acceptable establishment was Restaurant Y. The score for

the multi-attribute attitude measurement was calculated by making use of a modified equation as per Solomon (2002): Where, A is the overall attitude toward the restaurant, B the strength of the belief that the restaurant has any type of attribute (i), (i) the SERVQUAL attribute of a restaurant, (j) the restaurant, (k) the customers of a restaurant, (I) the customer evaluation of the strength or weakness of the attribute (i), (n) indicates the total number of customers. In making use of this equation, a customer's attitude towards a restaurant's service quality provision was measured based on the total of the products obtained by multiplying the mean values of each of the SERVQUAL attributes and their respective mean value of importance.

Restaurant X had the highest total mean attitude (8.94) and Restaurant Z (7.96), while Restaurant Y had the lowest total mean attitude (7.66). The variance between each of these three restaurants is thus small. The findings do however suggest that customers of Restaurant X expect a certain kind of service given that it is part of a restaurant franchise brand. Not surprisingly then, it achieved the highest Assurance attribute rating. In some cases, service failure on the part of a waitron or kitchen staff, was exacerbated by poor floor management techniques where managers failed to effectively deal with failures and where public arguments with customers were almost a norm. Restaurant X, as the most popular restaurant of the three investigated should reassess the attributes of Empathy and Tangibles for improvement if it is desirous of obtaining a greater market share. The research is clear that Restaurant X generally provides quality service to its customers. There are however concerns with ablution facilities that are not as clean as patrons would like them to be. The same applied to Restaurants Y and Z. Service was generally in line with what customers' expected but portions were not considered to be value for money in either of the restaurants. There was also an observation that meals were not balanced nutritionally and that vegetables, for example, had to be paid as an extra item in some cases. Customers felt this was not acceptable.

Service performance levels as perceived by customers were generally above the "minimum service level," but were however below the level of service that customers desire. The least problematic area for Restaurant X, was between perceived and desired service delivery presented for the attribute Responsiveness. This indicated that the restaurant's service is comparatively good. The Tangibles attribute was also fairly good. For restaurants Y and Z, service delivery was considered to be poor and prices were "unrealistic". The fastest service was at Restaurant Z, but that also had the least customers. The dirtiest ablution facility was at Restaurant Y. Waitrons in this restaurant were also sloppily dressed and the least empathetic. The training of waitrons was considered to be in need of improvement although it was acceptable, perhaps indicating a complacency amongst the South African consumer. Noise levels were the highest at Restaurant X, which is not surprising given that it

had the most customers overall. The seating and ambience in all three restaurants was acceptable but could be improved. Dining areas were all 'fairly clean', but the method of cleaning tables after others had just eaten at a table was considered 'laughable'. Menu items were acceptable, but prices were considered to high for certain items. The Assurance and Reliability attributes were consistent in Restaurant X-although some customers disagreed. It was mentioned in one customer comment that the floor manager of Restaurant Z was a 'pig'. After a complaint was made about cold food, he told the customers they were welcome to go elsewhere if they were not happy. Any customer service failure such as this, especially the information provided by the customer at the time that the complaint is lodged, should be viewed as a critical marketing research data, which is necessary not only for immediate service recovery but for the improvement of future performance which will hopefully lead to customer loyalty. Seventeen of the customers surveyed commented that they found prices to be higher than what they recalled from previous visits to each of the three restaurants. Restaurant customers typically store prices of meals in their memories (Grewal et al., 1998). Consequently, if the prices on a menu are higher than what the customer expects to pay, customer satisfaction will be negatively affected. It is thus important, for restaurants to have competitive menu prices for the market segment in which they seek to position their offerings.

Parking of vehicles was not problematic and customers felt safe in the casino complex, given that the area is boomed and that there is a visible security personnel presence. The evidence suggests that there is room for improvement in all three restaurants, especially Y and Z. especially tangibles need improvement. Better waitron training could also to a large degree result in better service quality provision in all three restaurants. The poorest floor management was in Restaurants Y where the person 'irritated' customers by constantly asking if everything was alright. Waiters should be certain and concise when taking orders, and meals and drinks must be delivered to diners within a reasonable time, ideally within 15 minutes. This requires effective training. It is also clear that South African customers who opt to pay using a credit or debit card tend to leave larger tips than those paying with cash. Previous studies have demonstrated that regular customers tend to leave larger tips than new customers (Azar, 2007) and this was found to be the case in this research.

The researcher was able to evaluate the service quality provision, and gained greater understanding of the customers' satisfaction levels as well as attitudes toward SERVQUAL's service attributes. It was discovered that there is indeed a large variance in service quality provision, which manifested itself in the tipping of waitrons. Based on comments obtained in the survey, it is apparent that waitrons who serve customers well develop a relationship with them that promotes service quality provision. This concurs with Fernandez (2004) who states that personal connections are what drive excellent service quality. From comments made, it is also clear that tip size provided by a customer at a restaurant is

not only affected by the quality of service they receive, but also by the economic state of the country. However, despite economic downturns, prompt and good quality service, is likely to result in bigger tips for waitrons' and in return patronage, but black customers must be educated about the customary 10% tip in South Africa. If we rank the restaurants in terms of the findings, Restaurant X would in 'gold medal' position, Restaurant Z would obtain 'silver' and Restaurant Y would obtain 'bronze'. The findings of this research provide useful suggestions to the restaurants in question for taking any necessary corrective actions to improve their service quality provision but there were some limitations.

## **STUDY LIMITATIONS**

SERVQUAL is a simple and useful model for qualitatively exploring and assessing customers' service experiences. It is widely used by service delivery organizations and is considered to be an efficient model in helping a business to intensify its efforts in However SERVQUAL's five dimensions are not universals, and do not draw on established economic, statistical and psychological theories. Service quality provision is also linked to employee satisfaction, which was not investigated in this study. SERVQUAL does to an extent illustrate the core of what service quality provision may mean including price, but it may also include other psychological and economic benefits. The intangibility, heterogeneity and inseparability of services create problems for managers and employees and thus also for customers.

The results of the study are based on a relatively small sample size which has been chosen from a small geographic during a short time period. Although the sample is reliable, it would be more accurate to expand this research throughout the province of Gauteng. There may well be other relevant restaurant service quality provision attributes that could influence customers' expectations and perceptions about their overall dining experience that are not included in this study.

The sample size of  $n=200$  was acceptable, but a bigger sample would have allowed for more authoritative analyses and findings. There could also have been more restaurants evaluated and ideally three from the same brand of franchise as Restaurant X. More efficient scales could be developed where individual items can be grouped together to reflect the construct which is to be measured. The nature of the environment was problematic as respondents were approach after leaving a restaurant where they had dined and were initially distrustful. There was also, in some cases extremity bias, where diners responded to questions by ticking the same number in a Likert scale, for all the items in a scale.

## CONCLUSION

The results of the gap analysis make it clear that the restaurant service providers did not meet customers' expectations. The indication is that overall restaurant service quality fell below the customers' expectations and that satisfaction was not as high as it should have been. There is thus room for service quality provision improvement in each of the restaurants. The three restaurants in this study could improve service quality provision through especially the dimensions of responsiveness, reliability and assurance. While how a waitron behaves may not directly influence customer satisfaction with a meal, it may have an indirect effect on customer satisfaction via quality service provision.

In terms of the findings of this study, three of the biggest gaps related to "waitron responsiveness", "inadequate assurance" and "clean ablution facilities", meaning that customers' expected much more responsive waitrons, greater assurance that quality of service and food would be good, and cleaner rest rooms than was actually experienced. All of the attributes in Table 3, with the widest statistically significant gaps represent severe deficits and require the significant attention of restaurant managers and staff in terms of making required improvements. The findings indicate that most of the customers' expectations concerning restaurant quality service provision are best explained by the subsequent factors, namely, appearance and ambience of facilities, a feeling of assurance, personalized service, satisfaction, responsiveness and reliability of waitrons. The latter determined the tip size they obtained to a large extent. The results thus strongly suggest that restaurant managers must train staff effectively and make certain that they provide timely service. The competence and efficiency of staff is critical to success. This will mean that there is accurate billing and service that is free of errors, leading to enhanced levels of customer satisfaction.

The critical strategy to retain customers is to improve service recovery quality, and by having a quick response to service failure. Consequently restaurant managers must immediately begin to focus attention on ensuring that future service delivery levels are high and seek to enhance the strength of customer relationships with each of the complaining customers. Managers should thus be attentive to recovery service quality as much as they are to service quality provision and should therefore enhance complaint management by having suggestion boxes at the front-desk or present customers with survey material to assess quality matters. Managers should formulate a competitive strategy based on a modified model of service quality provision to keep loyal customers and to enhance customer relationship management. Customer satisfaction undoubtedly has a major and direct effect on customers' behavioural intentions. Despite its shortfalls and limitations, this study implies some new contributions. The findings contribute to the development of a service quality provision excellence approach that will help to identify customers' expectations and hopefully encourage staff performance



improvement in the three restaurants studied. The results may thus expand knowledge of restaurant service quality provision that could drastically improve business for the restaurants involved as well as restaurants in general.

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## BUILDING THE GREEN-SMART WAY: EXPLORING CONDITIONS FOR GREEN AND SMART FURNITURE MANUFACTURING FOR PEOPLE IN THE THIRD AGE

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### ABSTRACT

The present paper discusses some of the findings of an ongoing “Green & Smart Furniture” (GSF) research project. It actually focuses on third-age consumers’ behavior and interest in purchasing smart and eco-friendly wooden furniture. The research reveals the critical elements for a successful design and production of GSF products that will enhance both needs and expectations of the consumers. Thus, 399 specially constructed questionnaires were gathered during 2013, which were further elaborated and statistically analyzed with SPSS ver 17.0.

Results are quite encouraging for the enterprises that would decide to design and produce smart and eco-friendly wooden products. Consumers show a significant interest in purchasing GSF at a percentage of 70%. They are willing to pay an extra amount of 9% in average than regular prices of conventional furniture. The most important factors in purchasing GSF have been found to be price, quality, functionality, safety and ergonomics, as well as the type of raw materials.

**Keywords:** *Green Wooden Furniture, Smart Furniture, GSF, Market research, Consumers’ Behaviour, Third age, Greece, sustainability*

### 1. INTRODUCTION

European Union, is one of the biggest manufacturers, traders and consumers of wooden product in the world (European Commission, 2013). Furthermore, the sector of furniture manufacturing in the E.U. has a strong presence internationally, mainly because of the high quality standards in technical and aesthetical level (UEA, 2005). During the period 2000-2007, furniture industry has known significant growth because of a sum of specific conditions. Nevertheless, there is in general a growing concern related to the environmental consequences that occur by the production, use and disposal of goods during the end of their life (Humphrey and Schmitz, 2001).

The knowledge on environmental consequences of the materials that are been frequently used in a particular industrial sector, constitutes enterprises capable to improve their products and their production processes by an environmental point of view and thus to accelerate their entrance to the emerging markets of green products (Nedermark, 1998).

Many furniture manufacturers at a global level, understand the responsibility they have in making environmental friendly furniture, since green products in general that are gradually been introduced in markets, force the designers of products to include environmental criteria in the production processes and in final products (Maxwell and van der Vorst, 2003; Shapiro and White, 1999) and thus the number of such enterprises is growing constantly (Frondel et al., 2007; Epstein and Roy, 2006).

Regarding Greek furniture sector, a related study of Papadopoulos et al., (2010) has shown that the majority of the Greek furniture enterprises are strongly support green entrepreneurship and certification of wood regarding its environmental impacts. Through this process, the firms believe that they will be able to develop new fields of entrepreneurial activity, based to certified ecological furniture products, enhancing their competitiveness and innovative activity (Trigkas et al., 2011).

## **2. LITERATURE REVIEW**

### ***2.1 Green wooden products***

Eco-furniture or “green” furniture, is defined as a product of furniture designed to minimize the environmental impact during its whole life-cycle (Albino et al., 2009; Baumann et al., 2002) and thus furniture with characteristics of environmental compatibility, taking into consideration all the stages in furniture life-cycle (Alhola 2008; Progetto Life, 2005).

Several research initiatives have been launched during the last years regarding furniture design and production that are environmental friendly. The ‘Life Environmental Ecofriendly furniture project’ has been launched in Italy during 2001 aiming in developing furniture prototypes with elements compatible to environmental protection, taking under consideration all the stages of a furniture life cycle (Progetto Life, 2005).

A very interesting initiative was also the Finnish Furniture Panel launched in 2004 focusing to environmental impacts of furniture during their life cycle, further aiming in finding solutions regarding the development of the sustainable growth of the furniture industry in the country (Finnish Furniture Panel, 2005; Nissinen and Parikka, 2007). Additionally, several web sites were developed, containing all the related information regarding issues concerning ecological furniture, for manufacturers as long for the consumers (Ecosmes, 2005; Nordic Ecolabelling, 2003; GRIP, 1998).

### ***2.2 Smart furniture***

Furniture constitutes part of our everyday living environment especially inside buildings, through which the user comes to a direct interactive contact in executing several activities. Studying daily routine and needs of a person through its interaction with furniture and utilizing technology, it is possible to develop new uses for furniture that will contribute to the improvement of quality of life.

Smart furniture constitutes the future evolution and tendency in furniture industry (Tokuda et al., 2003; Zongdeng and Wenjin, 2010). Thus, a smart furniture product has the capability to alter a conventional space into an intelligent spot that includes computing systems (Ito et al., 2003). Since a smart furniture is equipped with computing networks, sensors (Mavrommati et al., 2003) and several information technology devices, it could offer many different services, either by itself or in cooperation with other devices and items of the everyday human environment under the context of a Ubiquitous Computing (UmpiComp) environment (Wuliji, 2009). UmpiComp environments, regard the method in including and using computing systems in a way that constitutes them available to our everyday living environment, making them simultaneously "invisible" to the user (Weiser, 1993).

In a related study (Karvelas, 2007), some of the research projects in the field are presented, regarding smart furniture in networking to ubiquitous computing systems and environments.

Indicatively we refer the construction of a smart table which can recognize what and how much we are eating and which has been developed by a research team of the National University of Taiwan. The Dietary-Aware Dining Table using sensors for measuring the weight of objects and RFID technology in identifying objects, could know the amount and the type of food that has been consumed by the users during one meal (Chang et al., 2006).

Another example has to do with the Drift Table and the Key Table which were developed under the context of the project for residential technologies of Equator IRC, as smart furniture embedding functions such as, slow moving presentations of aerial photos, which their speed, direction and height are defined by the disposal of objects on its surface and their weight, or such as in understanding the mood of the user by the force that he put objects on the surface, using weight sensors (Gaver et al., 2004; Boucher et al., 2006).

The E.U. is also giving special attention in the development of smart furniture for the third age through the funding of the WIDER project (2014), in order to give the opportunity to furniture industries across Europe to innovate and differentiate from the competition and to produce this kind of products.

### ***2.3 Target group for Eco and Smart furniture***

The U.S. Congress spends approximately \$1.5 trillion for health care services on a yearly basis, while the forthcoming years the population of the third age is expected to become bigger than the younger

one (AAHSA, 2003; Dishman, 2004). The percentage of the U.S. population that is expected to be over 65 years old, shows constantly a growing tendency and it is foreseen to reach the 18,2% of the country's total population in 2025, with this tendency to be global (Dishman, 2004).

Furthermore, the improvement of living and the evolutions in the medicine science have contributed to the increment of the expected living, since during the second half of the 20th century expected living has been increased by 30-40 years (Huth, 1986, Pennathur et al., 2003). According to the forthcoming evolutions in medicine science and biochemist, the expected living is foreseen to be further increased for 20-30 years during the next generation (Pennathur et al., 2003).

Ageing in the third age is manifested usually through the reduction of stamina, ware down of bones and muscles atrophy, slowing down of senses and spiritual capabilities, loss of balance and slowing down of person's activity and mobility (Pheasant, 1986 in Comfort, 2003a; Burke, 1990).

Many research efforts has been made internationally during the last years regarding the design and development of products that would make easier the way of living of the aged people improving their surrounding space, especially in residencies, aiming to the confrontation or to the tempering of the negative consequences of ageing (Anderson, 1975; Demirbilek, 1999; Haigh, 1993; Naqvi et al., 1994; Pinto et al., 2000; Comfort, 2003a; Jönsson, 2003; Pennathur et al., 2003; Nikopoulos, 2010).

Thus the target group for "smart and eco furniture" under the context of the present research, has to do with the third age to which the research could offer many solutions in improving their everyday living, through becoming more independent, reduction of health care costs, improvement of their quality of life, securing spare time for persons that are involved to their treatment, improvement of their capabilities and cure until a level through everyday treatment. Regarding furniture enterprises, such an effort could have economic benefits in case of their mass production.

The aim of the present research under the context of the project GSF – Green and Smart (Eco-logical) Furniture, was to register the opinions and the correspondence of furniture consumers of the third age regarding smart and sheer ecological furniture, having as a main scope the introduction of the criteria according to which the first furniture with the above mentioned elements, will be designed at a European level.

### **3. RESEARCH METHOD**

A research instrument was developed to serve as the basis for collecting data pertaining to the study's parameters. All questionnaire items were constructed using self-typing 5-point Likert scales. Furthermore a number of questions would be of multiple-choice type. Both are well-accepted practices in this type of research. It should be noted that most questions reflect perceptions of the interviewed sample in order to outline the trends regarding GSF for the specific target group.

The items pertaining to each scale were pre-tested with 5 face-to-face interviews. The pre-testing process allowed the researchers to assess the content validity of items and ensure that interviewees understood the research instrument as they were intended.

The questionnaire included 4 different groups of interest and a total of 23 questions. The first group of questions regarded the general characteristics of furniture products that are currently used by the consumers. The second group included 9 questions related to the awareness of the consumers regarding the meaning of ecology and the inclusion of technology in furniture products specifically, but also into their everyday living in general. The third group constitutes of questions related to the type, specific characteristics and elements of smart and ecological furniture which could be developed as long the amount that the consumers are willing to pay extra in acquiring such a product. Finally, the fourth group was formed by questions regarding the profile of the consumers that have participated in the research in order to highlight the specific characteristics of the potential consumers of smart and ecological furniture.

The research was addressed to a random sample of 399 consumers from different regions of the country during 2013. Questions were selected in such a way in order to be short and comprehensive for the best possible convenience of the participants.

Before the launch of the study, a content validity test was conducted regarding the questionnaire. This test was based on discussions with furniture enterprises and specialized scientists in the furniture field along with the extended literature reviewing. Following this, a pilot questionnaire was tested to 10 consumers. The pre-sampling results indicated the points that needed to be further clarified improving the quality of the questionnaire (Dillman, 2000).

The construct validity was based on the test of unidimensionality of the elements constituting each factor, as well as the content validity of each factor separately. We used Factor analysis according to the method of Principal Component Analysis. Regarding the content validity of the research variables, the statistical factor of Cronbach's Alpha was used (Siomkos and Vasilikopoulou, 2005; Chantzoudis et al., 2009; Sarigiannidis et al., 2009).

Data were processed and analyzed using the statistic package SPSSWIN ver 17.0 and all the related tests of Frequencies, Descriptives, Crosstabs, Correlation analysis and Cluster analysis were made (Norusis, 2007; Howitt and Cramer, 2003), in order to highlight the specific characteristics of the potential consumers of smart and ecological furniture and the range of integration regarding attributes – functions of the furniture products.

#### **4. RESULTS**

The sample consists mainly of people between 61 - 75 years old, of low and average annual family income ranging from 5.000€ to 20.000€. Furthermore, the majority states that they live in towns in detached residences with a surface from 50 to 100 square meters, while the 24,0% of them owns bigger spaces (101 - 120 square meters). The majority live with husbands/wives or the rest of the family.

The analysis of the first group of the research's questions delineated the contemporary use of furniture in residences and their specific characteristics regarding people of the third age. Spending most time, in their living room (at a percentage of 40,4%) and kitchen (at a percentage of 32,6%) the target group places great importance on chairs (27,9%) and tables. Wooden furniture comes also first to the participating consumers' favor regarding everyday use.

A 54,4% of the target-group consumers admit that they are not willing to replace conventional furniture with green and smart ones unless it is cheaper (Figure 1). This finding is quite normal considering the squeezed income in the current difficult economic climate in Greece during the last 4 years. However, there are also three more criteria that seem to have a significant role in purchasing GSF: a) health condition (50,4%), b) assistance of GSF to everyday living (49,4%) and c) environmental protection along with the improvement of their everyday living conditions (49,1%). The last criterion confirms further previous relative researches (Papadopoulos et al., 2010; Trigkas et al., 2011) regarding the role of environmental protection in developing new target groups and markets for the furniture and wood sectors in Greece and in general, as well as for the development of new entrepreneurial opportunities under the context of green entrepreneurship. The awareness of contemporary consumers of environmental issues indicates that the area of green furniture should be an alternative aspect under consideration by furniture enterprises when forming their competitive strategies.

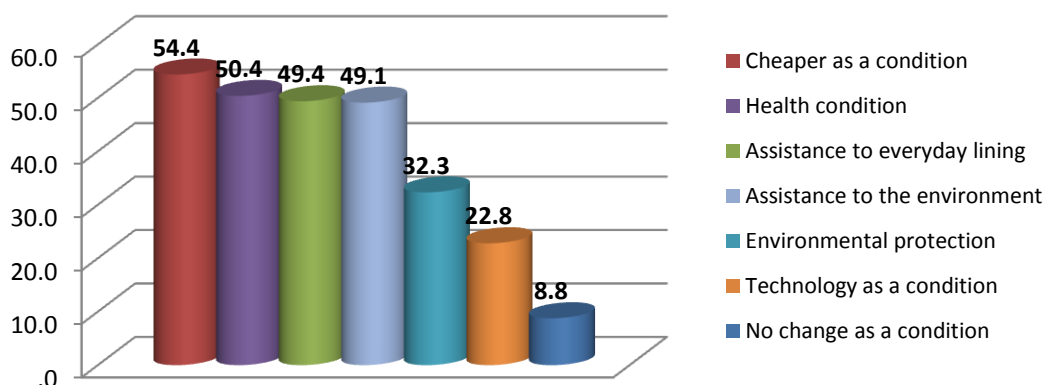


Figure 1. *Criteria for changing conventional furniture with smart and ecological ones*

The analysis of the answers to the third-group questions indicated characteristics and properties desired by GSF in regard to:

- environmental and natural resources protection,
- technology and its applications



- the specific needs and demands of end users and their surrounding space.

Therefore, the most important criteria using a 5-Linkert scale (with 1 as very much) appear to be:

- a) sustainability regarding natural resources' use (ranking 1.72),
- b) production processes that respects the environment (1.74),
- c) energy saving during production and use (1.79) and
- d) to be manufactured by recyclable materials (1.82).

Attributes such as ergonomics, safety, use of ecological finishing materials, the ability of reusing the components in the end of life-cycle and the use of innovative materials, follow at a lower significance ranking.

It should be mentioned that these findings coincide with EU policies on furniture's value chain, which set among major priorities the production and use of products that minimize their environmental footprint, in the context of efficient use of resources and sustainability. Forest products should follow the Cascade principle according to the European Commission (2013), and thus present a life cycle of: a) production, b) reuse, c) recycle, d) bioenergy production and e) eco-disposal of wooden products

CHARACTERISTICS AND PROPERTIES OF ECOLOGICAL FURNITURE	Rank	Std. Dev.
Preservation of natural resources	1.72	.963
Environmental friendly production process	1.74	1.042
Energy saving	1.79	.971
Use of recyclable materials	1.82	.938
Safety and Ergonomics	1.86	.937
Use of ecological varnishes	1.91	1.148
Material reusability	2.02	1.113
Use of innovative materials	2.37	1.193

Table 1. *Criteria that ecological furniture should meet (ranking 1 till 5, with 1=very much and 5=not at all)*

The familiarity of third-age consumers with technology was further explored as well as the range of inclusion of computing systems into several technological applications and functions. 36.3% of the respondents consider the use of technology as a good idea while the 31.6% consider it as quite necessary and a 25% stated that technology helps a lot their everyday living. These consumers seem to have bigger familiarity with technology mainly regarding applications such as the use of mobile phones (2,54), home automations like automatic wind screens and lightning (3,39), use of audiovisual

means such as TV, DVD, projectors. (3.43), and IT and internet at a ranking of 3.79 and 4.00 respectively.

Focusing more on the specific characteristics and properties of smart furniture, the analysis of the results has revealed that the anthropocentric design constitutes the basic property of the furniture product with technological characteristics to follow. Such attributes could be the capability of warning for health problems of the person at home or the capability to communicate with the user and interact with its environment.

These findings could be further correlated with the results of Table 2, regarding the aims that smart furniture should achieve. Thus, at a declining significance ranking, the participants consider that smart furniture should facilitate user's everyday living > execute some routine activities > secure an independent everyday living of the person > generate a pleasant environment inside the house.

Aims regarding the health of the user, such as the function of becoming a warning device in health and safety issues and the monitoring of the person's health in general follow with a ranking of 2.03. Chi square test has shown that a statistical significant correlation exists between groups of ages and a) the property of facilitating the communication with other people outside the house (Pearson  $X^2 = 33.53$ , for a significance level >99.9% Approx. Sig= 0.001) and b) monitoring of person's health (Pearson  $X^2 = 32.51$ , for a significance level >99.5% Approx. Sig= 0.005). Hence, the older the person, the bigger becomes the need of communication with other people and the monitoring of their health.

PROPERTIES AND CHARACTERISTICS OF SMART FURNITURE	Rank	Std. Dev.
Facilitation of user's everyday living	1.40	.760
Facilitation of user's routine works	1.73	1.137
The independent everyday living of users	1.87	1.062
Pleasant environment inside the houses	1.88	1.064
Its function as a warning device regarding user's health and safety issues	1.89	1.130
Monitoring of user's health	2.03	1.510
Securing the user's privacy	2.07	1.189
Interraction with other furniture	2.26	1.286
Communication with person outside the house	2.49	1.383

Table 2. *Properties and characteristics of smart furniture (ranking 1 till 5, with 1=very much and 5=not at all)*

Thus, anthropocentric design is significant for smart furniture with the potential to facilitate user's everyday routines in a pleasant environment inside the house with parallel simple and easy-to-use technological support in health issues such as monitoring and warning.

Finally, the three most important factors that influence the participants' decision in purchasing GSF appear to be price, quality and functionality of the furniture as presented in Table 3. The rest of the factors follow, such as safety and ergonomics, environmental protection, technology and the design.

FACTORS	Rank	Std. Dev.
Price	1.40	.821
Quality	1.43	.750
Functionality	1.53	.820
Safety and ergonomics	1.60	.862
Raw materials	1.70	.926
Environmental protection	1.81	1.009
Technology	2.29	1.295
Design	2.40	1.326

*Table 3. Factors and range of influence in purchasing smart and ecological furniture (ranking 1 till 5, with 1=very much and 5=not at all)*

The above mentioned factors of Table 3 are correlating each other and the correlation analysis using the Pearson correlation coefficient (Pcc) indicates that at a significance level of 0.01 the factors that affect positively each other in order for a consumer to buy GSF are the following:

- Quality in relation to a) raw materials used for manufacturing (Pcc = 0.606), b) functionality (Pcc = 0.469), c) ergonomics and safety (Pcc=0.412).
- Price in relation to a) quality (Pcc = 0.365) and b) functionality (Pcc = 0.229).
- Functionality in relation to a) safety and ergonomics (Pcc = 0.626) and b) raw materials used in manufacturing (Pcc = 0.560).
- Design in relation to a) technology (Pcc = 0.624) and b) ergonomics and safety (Pcc = 0.455).

Based on these findings, it is speculated that the added value for the GSF consumer is significantly related to economic factors, which is quite expected within the context of the severe Greek economic crisis. Qualitative characteristics and facilitation of everyday routine of users follow indicating that the main criteria regarding the decision of purchasing GSF are not substantially different of those for the conventional furniture. Nevertheless, firms will have to detect these specific elements that will allow them to achieve differentiation during production, including the incorporation of sophisticated technology and environmental protection in their products.

Following the above mentioned findings and according to Table 4, it is observed that the consumers' preferences, regarding the functions that a smart furniture could have, are mainly oriented towards: a) the convenience in maintenance and cleaning (1.64), b) convenience in movement (1.67), c) safety (1.71) and d) support of persons for changing spots of the furniture or adjustment of its dimensions according to their anthropometric characteristics.

FACTORS INFLUENCING PURCHASING DECISION	Rank	Std. Dev.
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Convenient maintenance and cleaning	1.64	.974
Supporting of furniture to persons with the capability of easy movement	1.67	1.109
Safety of furniture	1.71	.938
Supporting of furniture to persons to change from sitting in vertical position and vice versa (chair/bed)	1.72	1.079
Supporting of furniture to persons with movement and adjustment to the anthropometric characteristic (height of table)	1.83	1.217
Informing of relatives for health problems	1.92	1.290
Other characteristic	2.33	2.309
Informing of relatives for routine activities	2.76	1.566

Table 4. *Functions of a GSF (ranking 1 till 5, with 1=very much and 5=not at all)*

The functions of smart furniture should secure convenience and adjustments to individual anthropometrics and kinesiology according to age and safety. The average consumer of the third age, according to the research, thinks of multifunctional furniture, which will furthermore contribute towards the reduction of everyday living cost through the satisfaction of a wider range of needs.

Of significant importance are also the findings presented in Figure 2 which concern the extra amount of money that the consumers are willing to pay in order to buy GSF. A rather satisfactory 27.4% states that are willing to pay a 5-10% extra for GSF compared to conventional furniture. Adding the percentage of those who are willing to pay an extra 1-5% (22.4%) and an extra 11-15% (18.6%), a cumulative percentage of 68% of the research sample seems willing to pay till 15% more for GSF in relation to a conventional furniture.

These findings are quite significant, since besides the economic downturn and its dramatic consequences to the family income and the furniture sector in Greece, consumers are willing to pay extra for the added value of a furniture product with technological and ecological innovations to satisfy specific needs. This information is quite valuable for the furniture manufacturing sector; it actually can constitute an important recommendation regarding competitive strategies based on differentiation. Reconsideration of low-cost business strategies towards innovation and differentiation are quite sufficient to secure a significant part of the internal market and furthermore, to boost extroversion within the crisis context (Papadopoulos et al., 2012; Trigkas et al., 2012; Papadopoulos et al., 2010).

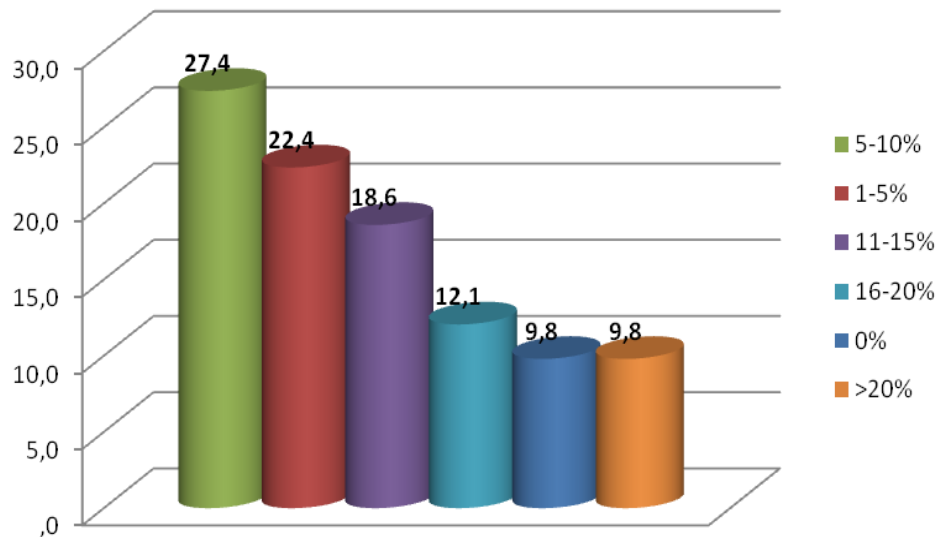


Figure 2. Extra amount of money that consumers are willing to pay for a smart and ecological furniture

Thus, according to the above mentioned results, it seems that there exists a "critical mass" of consumers of GSF in Greece, which can constitute a significant market for innovative Greek furniture enterprises during the period of the economic recession. Furthermore, the specific type of furniture can also support export activities which are rather rare for the Greek furniture sector.

Using cluster analysis we tried to focus more on the preferences of the target group of potential GSF consumers in relation to their specific characteristics and profile, such as their age and income. Table 5 presents the basic GSF properties and characteristics in relation to the consumers' age. Thus, it seems that for almost the sum of the age groups, these properties are convenience in maintenance and cleaning and the convenience in moving the furniture, especially for ages over 66 years old, as well as supporting in changing positions when sitting. The capability of warning for health problems seems to play a significant role for ages over 75 years old.

Age Groups	Furniture Attributes	Rank
<50 years	Safety	1.50
	Convenience in maintenance and cleaning	1.56
50-55	Moving the furniture	1.56
	Convenience in maintenance and cleaning	1.73
56-60	Convenience in maintenance and cleaning	1.70
	Safety	1.75
61-65	Adjustment to anthropometrics	1.61
	Supporting in changing position from sitting into vertical and vise versa	1.74
66-70	Safety	1.75
	Moving the furniture	1.77
71-75	Convenience in maintenance and cleaning	1.47
	Moving the furniture	1.50
76-80	Convenience in maintenance and cleaning	1.39
	Warning relatives for health problems	1.61
>80 years	Convenience in maintenance and cleaning	1.00
	Moving the furniture	1.00

Supporting in changing position from sitting into vertical and vise versa	1.00
Adjustment to anthropometrics	1.00

Table 5. *Groups of consumers according to age and furniture attributes (ranking 1 till 5, with 1=very much and 5=not at all)*

What are the main reasons that our target group would decide to pay an extra amount of money? The research indicated (Table 6) that there are actually different criteria for different ranges of percentages of extra amounts. More precisely, the actual purchase price and the level of quality are the main criteria for people who are willing to pay 1-15% more for GSF. The actual price seems to be the only criterion for paying more than 20% since there is a common perception that GSF will be rather expensive. However, the people who seem willing to pay an extra amount of 1-5% expect also better ergonomics, safety, functionality and assurance that environmental protection has been taken into account during production. On the contrary, the results show the willing to pay of the consumers an extra amount from 16-20% has to do mainly with the design of a GSF.

Extra amount	Criteria in purchasing	Rank
1-5%	Quality	1.12
	Safety - ergonomics	1.12
	Environmental protection	1.16
	Price	1.16
	Functionality	1.16
6-10%	Price	1.20
	Quality	1.20
11-15%	Quality	1.65
	Functionality	1.71
16 – 20%	Design	4,00
>20%	Price	1.19

Table 6. *Groups of consumers according to the extra amount they are willing to pay in purchasing a GSF and purchasing criteria (ranking 1 till 5, with 1=very much and 5=not at all)*

## 5. CONCLUSIONS - PROPOSALS

Wooden furniture is still the first preference of the participants of the research, regarding everyday use. Thus, wood could constitute the basis for the construction of a GSF, since it is by its nature an ecological material having the minor environmental footprint in relation to other materials. This property can be even of greater value when wood comes from certified sustainable managed forests and if the wood products bear the relevant labeling at European and international level according to UNECE and FAO (2012).

The criterion of price in relation to the quality plays the most fundamental role in the purchasing decision of GSF and the willingness to change conventional furniture. Modern consumers that belong to the third age seem to have a great awareness regarding environmental issues, a fact that enterprises should take into consideration and include to their planning and strategy.

GSF properties and characteristics of special interest seem to be the promotion of sustainability in natural resources use, the environmentally friendly production process, energy saving during its production and recyclable materials (when other than wood).

Regarding the "smart" - technological characteristics of the GSF, the significant ones are these of the ability to warn for health problems of the person, the ability to communicate with the end users and the ability to interact with its environment, with ergonomic design as a core element. Thus, the participants in the present research consider that "smart" furniture should facilitate their everyday routine and secure independence of the person. Regarding the specific technological applications that could be included to smart furniture, the technology of mobile phones seems to be more familiar to the users with the use of audiovisual means and use of computers and internet to follow.

The main criteria regarding the purchasing decision of GSF do not substantially differentiate in relation to conventional furniture products, a fact that can direct furniture enterprises towards the development of their competitive advantages. Nevertheless, regarding their manufacturing strategy they should detect these elements that differentiate them from competition and allow them to achieve their targets, including sophisticated technology and environmental protection in their products.

The majority of the sample state that are willing to pay an extra amount of 9% in average of the price of a conventional product, while the 2/3 of the consumers could afford a 15% extra amount. This percentage is of great importance if we take under consideration the reduced available income of the consumers because of the economic crisis in Greece during the last 4 years. This percentage is higher than the one found in a relevant study regarding the market of furniture with only ecological characteristics (Papadopoulos et al., 2013). A 10% states that they are not willing to pay extra, a fact that can be explained because of the reasons mentioned above.

These findings are quite encouraging regarding the existence of potential GSF consumers in Greece and indicate that third-age consumers are willing in purchasing GSF that includes sophisticated characteristics and properties focused on their needs which also comply with ecological standards. The capability in warning a familiar person to the GSF user for health problems seems to play a significant role for ages over 75 years old, which are these group of ages that usually need medical care.

The present research is the first in Greece and at European level, according to our knowledge. We could argue that it promotes the development of innovation for furniture manufacturing industries, in

order to approach an extended range of consumers, through the production of GSF. Thus, a new pathway is opening in confronting the difficulties and strong competition that furniture sector faces at national and European level, and recover the crisis (Papadopoulos et al., 2013). Furthermore, findings constitute an optimistic message towards furniture manufacturing sector; firms should redesign their strategy (Papadopoulos et al., 2009), focusing in differentiation by including GSF products in their portfolio, innovating through the production and promotion of furniture products with high added value. This fact could secure a share of the domestic market and boost extroversion, which is of great importance. This optimistic thesis is further certified by the findings of a previous study regarding only ecological furniture (Papadopoulos et al., 2013), where Greek and Cypriot enterprises consider the development of ecological furniture very positively, without mentioning the inclusion of "smart" elements.

Findings also certify the research of Tokuda et al., (2003) and Zongdeng and Wenjin, (2010), that "smart" furniture constitutes the future trend and evolution in the furniture industry.

The present research has certain limitations. Further research could be extended to a bigger sample of consumers in Greece and other countries e.g. Cyprus, Italy, Germany, Spain, France, Russia, Portugal, Israel etc. In this way, we could have a holistic picture of trends and tendencies in these countries too and develop a more concrete portfolio of characteristics and properties of innovative green and smart furniture.

## ACKNOWLEDGEMENTS

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## COMPETENCE OF BOLLYWOOD CELEBRITIES IN GENERATING BRAND RECALL IN KOLKATA

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### ABSTRACT

Kolkata is known world over as the **"City of Joy"** and is also treated as the cultural hub of India. Brands from within the country as well as from abroad are trying to connect with their target audience of Kolkata. Advertisers are making use of both **rational and emotional appeals** in their advertising campaign in order to position their brands in the mind of the target audience in Kolkata

**Celebrity endorsement** has become very prominent in mass media and advertisers are signing the **Bollywood Celebrities** for their brand endorsement purpose with the expectation of creating brand recall and preference among the target audience.

The **objective** of this paper is aimed at determining the proficiency of selected Bollywood Celebrities in generating **Brand Recall** among the respondents of different **gender** and **age groups** in Kolkata.

**Primary research** was conducted with cross sectional research design by applying survey method among a randomly selected sample of 400 respondents in Kolkata with a structured questionnaire. Independent sample t-test and ANOVA techniques were used for analyzing the data.

The **findings** show that all the selected Bollywood celebrities are **highly familiar** among the respondents. There is no significant difference in their brand recall generation capacity among **male and female** respondents. However, they are having a significant impact in generating brand recall among the respondents belonging to the age group (18-25) years compared to the others three age groups selected for the study.

**Keywords:** Bollywood, Brand Recall, Globalization, Kolkata, Celebrity, Media.

## INTRODUCTION

Bollywood Celebrities from the Hindi film Industry in Mumbai are having huge fan following in India and are also seen endorsing brands across product categories be it FMCG, Consumer Durables, Service brands and even they are a part of various social awareness campaigns.

As per reports available based on a study conducted by AdEx India a division of TAM Media research, Celebrity Endorsement Advertising volume witnessed a growth by 26% in January - June 2013 in comparison with January - June 2012.

From the same study it is evident that the Hindi Film Stars (HFS), actors and actresses from Bollywood, Mumbai captured 80% of Celebrity Advertising in terms of Advertisement Volume in January - June 2013 followed by Sports Celebrities, Television Actors and Actresses.

One of the major developments in the business world during the decade of the 90's was the Globalization of markets. The emergence of a largely borderless world has created a new reality for all types of companies. Swiss- based Nestle and Netherlands- based Unilever is among two of world's largest consumer product companies because they have learned the art of marketing their brands to consumers in countries around the world. Two of the world's major marketers of cellular telephones are from Scandinavian countries. Nokia is based in Finland and Ericsson is located in Sweden.

In the era of Globalization, multinational corporations trying to connect with the Indian target audience are quick to realize this trend and are hiring famous Bollywood celebrities for their brand endorsement purpose.

A study conducted among MBA students of Pune in India to determine the association between celebrity advertising and brand recall shows that recall for female celebrity advertisement is lesser compared to that of male celebrity (Dhotre and Bhola 2010).

Branding in some form or the other has been around for centuries. The initial intention was for craftsmen and others to identify their unique work so that the customers could easily recognize them.

It is worthy to note that marks have been found on early Chinese porcelain, on pottery jars from ancient Greece and Rome and on goods from India dating back to about 1300B.C.

According to (Keller, 2007) Procter and Gamble put the first brand management system in to place, whereby each of their brands had a manager assigned to only that brand who was responsible for its financial success.

According to (Keller, 2007), Branding is treated as a means to distinguish the goods of one producer from those of another. According to the American Marketing Association (AMA) a brand is a "name, term, sign, symbol or design, or a combination of them, intended to identify the goods and services of one seller or group of sellers and to differentiate them from those of competition".

Celebrity endorsement enhances product information and creates awareness among consumers. It helps them to recall the brands of the durable products (Balakrishnan & Kumar 2011).

A study conducted by (Bimal et. al. 2012) reveals that celebrity endorsers are used by the companies for brand equity. It has also showed that consumer think that celebrity endorsed advertisement are reliable and they have the knowledge. They are able to recall the product, the consumers feel associated and it has also helped in influencing the demand of the products.

In the present situation it is extremely relevant to understand the proficiency of the Bollywood celebrities in generating brand recall as huge amount of money is paid to these celebrities as endorsement fees and they are also occupying huge amount of space and time in print and audio visual media as brand endorser.

#### *Branding challenges and opportunities*

In the words of (Keller, 2007) the reality is that although brands may be as important as ever to consumers, brand management may be more difficult than ever. A number of developments have occurred recently that have complicated marketing practices and made the job of brand manager even challenging.

- Savvy Customers
- Brand Proliferation
- Media fragmentation
- Increased Competition
- Decreasing Brand loyalty
- Learning Advantage
- Consideration Advantage
- Choice Advantages

The recent report about the Best Global Brands of 2013 published by Interbrand shows that Apple has secured the top position followed by Google and others. The list of top 10 best global brands is presented in the figure below.











2013 Rank	2012 Rank	Brand	Brand Name	Region/Country	Sector	Brand Value (\$m)	Change in Brand Value
1	2		Apple	United States	Technology	98,316	28%
2	4		Google	United States	Technology	93,291	34%
3	1		Coca-Cola	United States	Beverages	79,213	2%
4	3		IBM	United States	Business Services	78,808	4%
5	5		Microsoft	United States	Technology	59,546	3%
6	6		GE	United States	Diversified	46,947	7%
7	7		McDonald's	United States	Restaurants	41,992	5%
8	9		Samsung	South Korea	Technology	39,610	20%
9	8		Intel	United States	Technology	37,257	-5%
10	10		Toyota	Japan	Automotive	35,346	17%

Figure-1 Top 10 Global Brands of 2013 (Source *interbrand.com*)

On focusing our attention from the Global context to Indian situation we see that the Most Trusted Brand of 2013 as per a study conducted by *economictimes.indiatimes.com* in Indian context is Colgate followed by Dettol, Clinic Plus and others.

Between unexpected climbers and widely anticipated slips, India's largest brands continue to command a lion's share of the trust of its consumers. The list of top twenty five most trusted brands is presented in the figure below. The figures in brackets represent brand ranks from Most Trusted Brand 2012 study.





Figure-2 Most Trusted Brand of 2013 in Indian Context (Source [economictimes.indiatimes.com](http://economictimes.indiatimes.com))

In order to cope up with this challenging situation of connecting with the culturally diverse Indian target audience MNC's and the domestic players are taking the celebrity route to brand building.

#### *Celebrity endorsement in India*

In India now it has become a common phenomenon among advertisers and their advertising agencies to use Indian Celebrities for promoting their brands. Celebrities are considered as “any individual who enjoys public recognition and who uses this recognition on behalf of a consumer good by appearing with it in an advertisement” (McCracken, 1989).

This definition of celebrity is considered in this study and it encompasses Movie stars from Bollywood Mumbai. In this study the term “Celebrity” will encompass a variety of endorsements including those in explicit mode “I endorse this product”, the implicit mode “I use this product”, the imperative mode “You should use this product” and the co present mode “the celebrity appears with the product” (McCracken, 1989).

## LITERATURE REVIEW

According to (Keller, 2007) Brand Awareness consists of brand recognition and brand recall performance. Brand Recognition relates to consumers' ability to confirm prior exposure to the brand when given the brand as a cue.

Brand Recall relates to consumers' ability to retrieve the brand from memory. It requires that the consumers correctly generate the brand from memory when given a relevant cue.

In the words of (Keller, 2007) Brand Awareness also involves linking the brand- the brand name, logo, symbol and so forth- to certain association in memory. Brand Recall can further be classified as unaided recall and aided recall.

According to (Keller, 2007) in unaided recall consumer recall the brand unaidedly where as in aided recall various types of cues are presented to help the consumer recall the brand.

Effect of celebrity endorsement on Brand Awareness-Recall has been an area of research that has been studied by researchers. A celebrity was better than other endorsers in enhancing brand name recall (Friedman and Friedman 1979).

A study conducted among MBA students of Pune in India to determine the association between celebrity advertising and brand recall shows that recall for female celebrity advertisement is lesser compared to that of male celebrity (Dhotre and Bhola 2010).

It is also evident from existing literature that a celebrity was better in enhancing brand name recall than a non-celebrity (Petty et. al. 1983). A physically attractive celebrity paired with an attractiveness-related product could enhance brand name recall (Kahle and Homer 1985).

Misra and Beatty (1990) also showed that celebrity/product congruency is better in enhancing brand name recall than an incongruent or irrelevant celebrity.

However different findings emerged from a study conducted by (Costanzo and Goodnight 2005). The results presented in their study, however, found that a celebrity recognized in a magazine advertisement did not increase consumer recall of the brand endorsed by the celebrity for both professional athlete celebrities and other entertainment celebrities who are not professional athletes (Costanzo and Goodnight 2005). The results of their study raise questions relative to using celebrity endorsements to enhance brand recall. Celebrity endorsement enhances self-brand connections when consumers aspire to be like the celebrity, but harms them when consumers do not; this effect is more pronounced when the brand image is congruent with the celebrity's image (Escalas and Bettman 2009).

Another study conducted on "Effectiveness of Celebrity Advertisements" by (Rajeswari et. al. 2010) highlighted that factors like age, gender, viewers' status, monthly family income, educational qualification, period of awareness of celebrity advertisements and the type of celebrities (Film stars, Sports stars, Professional models and TV personalities) have close relationship with the level of effectiveness of celebrity advertisements.

However factors like family type and frequency of watching the advertisements have no significant relationship with the level of effectiveness of celebrity advertisements.

Celebrity endorsement enhances product information and creates awareness among consumers. It helps them to recall the brands of the durable products (Balakrishnan & Kumar 2011).

From review of existing literature it is seen that contradictory findings emerged regarding the effect of celebrity endorsement on Brand recall. Most of the earlier studies were conducted with students and were experimental in nature. Hence the present study is conducted not just among students but respondents of different gender and age groups in Kolkata.

### **Research Objectives & Hypothesis**

The study is undertaken with the following broad objectives-

- First to determine the Brand Recall generation capacity of Bollywood celebrities among **male and female** respondents in Kolkata.

- Second to understand the Brand Recall generation capacity of Bollywood celebrities among respondents of different **age groups** selected for the study in Kolkata.

Keeping the above objectives in mind the following hypothesis are formulated-

H01: There is no difference in Brand Recall score of Bollywood celebrities among male and female respondents in Kolkata.

H02: There is no difference in Brand Recall Score of Bollywood celebrities among respondents of different age groups in Kolkata.

### Research Methodology

In the first part of the study 10 Bollywood Celebrities were selected based on a pilot study conducted among 50 respondents in Kolkata depending on their familiarity and Popularity. Thereafter, the brands endorsed by each of these 10 Indian Celebrities were tracked from advertisements featuring in Television and News papers during the study period as presented in table 1.

Sr. No	Bollywood Celebrities	Celebrity Gender	Brand Endorsed	Number of Brands Endorsed
1	Amitabh Bachchan	Male	Reid & Taylor, Boroplus, Eveready, Parker Pen, Binani Cement, ICICI prudential, Cadbury Dairymilk, Tanishq, Navratna oil, Just Dial, Gujarat Tourism	11
2	Shah Rukh Khan	Male	Nokia, Linc, Airtel, Sunfeast, Fair & Handsom, Belmont, Dish TV, Videocon, Emami Sona Chandi Chywanprash, Pepsodent, Hyundai i10, Nerolac, IIPM, Gitanjali Jewels	14
3	Amir khan	Male	Inova , Coca cola, Tata Sky, Samsung Mobile, Titan, Parle G	6
4	Saif Ali Khan	Male	Lays, Asian Paints, Lenevo, Royal Stag, Airtel Digital TV, Airtel Voice Message, Taj Mahal Tea	7
5	Ranbir Kapoor	Male	Pepsi, Tata Docomo, Panasonic, John Players, Hero Moto Corp,	5
6	Salman Khan	Male	Mayur, Chloromint	2
7	Aishwarya Rai Bachchan	Female	Lux, L'oreal (Hair colour), Longines	3
8	Katrina Kaif	Female	Slice, Pantene, Veet, Nakshtra, Godrej Renew	5
9	Kareena Kapoor	Female	Vivel, Sony Vaio, Lakme, Gitanjali Jewels	4
10	Priyanka Chopra	Female	Nikon's, Lux, Levis, Nokia, Asmi Jewellery, Garnier	6

*Table 1 Brand endorsement details of 10 selected Bollywood celebrities (source the researchers' survey)*

Cross sectional research design was applied for collecting the primary data by survey method from the respondents of Kolkata. A structured questionnaire was administered for collecting the data. The Target population was defined in terms of elements-male and female 18 years to 49 years, sampling unit-household, and extent- city of Kolkata. The Sample Size was arrived at 400 for the study keeping in mind the availability of time, resources, and sample size used in similar studies. The sample size was also selected keeping in mind 95% confidence level and 5% confidence interval.

The first question was asked to ascertain the familiarity of the Bollywood celebrities. The next two questions were asked to find out the Brand Recall score of the Bollywood celebrities. The actual number of correct brands unaidedly recalled against a celebrity is noted for calculating the Unaided Brand Recall score of that celebrity. Similarly the actual number of correct brands aidedly recalled against a celebrity is noted for calculating the Aided Brand Recall score of that celebrity. The Unaided and Aided Brand recall Score of the Bollywood celebrities among male and female respondents are presented in table 2 and table 3 respectively.

Sr. No	Bollywood Celebrities	Unaided Brand Recall Score	Aided Brand Recall Score
1	Amitabh Bachchan	302	1197
2	Shah Rukh Khan	316	1532
3	Amir khan	246	574
4	Saif Ali Khan	162	570
5	Ranbir Kapoor	226	430
6	Salman Khan	64	112
7	Aishwarya Rai Bachchan	191	290
8	Katrina Kaif	202	397
9	Kareena Kapoor	156	268
10	Priyanka Chopra	170	314

*Table 2 Unaided and Aided Brand recall score of Bollywood celebrities among male respondents (source the researchers' survey)*

Sr. No	Bollywood Celebrities	Unaided Brand Recall Score	Aided Brand Recall Score
1	Amitabh Bachchan	226	950
2	Shah Rukh Khan	231	1248
3	Amir khan	168	438
4	Saif Ali Khan	153	494
5	Ranbir Kapoor	156	298
6	Salman Khan	48	64
7	Aishwarya Rai Bachchan	199	297
8	Katrina Kaif	143	391
9	Kareena Kapoor	147	265
10	Priyanka Chopra	154	338

*Table 3 Unaided and Aided Brand recall score of Bollywood celebrities among female respondents (source the researchers' survey)*

Similarly, the Unaided and Aided Brand recall Score of the Bollywood celebrities among respondents of different **age groups** of Kolkata is presented in table 4 and table 5 respectively.

Sr. No	Bollywood Celebrities	(18-25) years	(26-33) years	(34-41) years	(42-49) years
1	Amitabh Bachchan	386	84	38	20
2	Shah Rukh Khan	396	80	51	20
3	Amir khan	290	78	32	12
4	Saif Ali Khan	204	61	40	10
5	Ranbir Kapoor	298	52	24	8
6	Salman Khan	88	10	10	4
7	Aishwarya Rai	288	57	36	9

	Bachchan				
8	Katrina Kaif	260	50	25	10
9	Kareena Kapoor	230	41	26	5
10	Priyanka Chopra	246	44	22	11

*Table 4 Unaided Brand recall score of Bollywood celebrities among respondents of different age groups (source the researchers' survey)*

Sr. No	Bollywood Celebrities	(18-25) years	(26-33) years	(34-41) years	(42-49) years
1	Amitabh Bachchan	1590	308	207	42
2	Shah Rukh Khan	2154	348	228	50
3	Amir Khan	736	168	82	26
4	Saif Ali Khan	792	148	94	30
5	Ranbir Kapoor	560	106	46	16
6	Salman Khan	130	24	12	10
7	Aishwarya Rai Bachchan	420	85	62	18
8	Katrina Kaif	574	118	72	22
9	Kareena Kapoor	392	77	48	16
10	Priyanka Chopra	500	86	50	14

*Table 5 Aided Brand recall score of Bollywood celebrities among respondents of different age groups (source the researcher's survey).*

## RESEARCH FINDINGS

It is clearly evident that all the respondents in Kolkata are having 100% familiarity with the selected Bollywood celebrities. Shah Rukh Khan is having the maximum Brand Recall generation capacity among both male and female respondents followed by Amitabh Bachchan. The list of five top Bollywood celebrities in terms of their Brand Recall generation score is presented below in table 6.

Unaided Brand Recall Score among male	Aided Brand Recall Score among male	Unaided Brand Recall Score among female	Aided Brand Recall Score among female
Shah Rukh Khan	Shah Rukh Khan	Shah Rukh Khan	Shah Rukh Khan
Amitabh Bachchan	Amitabh Bachchan	Amitabh Bachchan	Amitabh Bachchan
Amir Khan	Amir Khan	Aishwarya Rai Bachchan	Saif Ali Khan
Ranbir Kapoor	Saif Ali Khan	Amir Khan	Amir Khan
Katrina Kaif	Ranbir Kapoor	Ranbir Kapoor	Katrina Kaif

*Table 6 Top Five Bollywood celebrities in terms of their Unaided and Aided Brand recall Score among male and female respondents of Kolkata (source the researcher's survey).*

It is interesting to note that regarding the first hypothesis the results of the independent sample t-test for Unaided Brand Recall shows t statistic of 1.436 with 18 degrees of freedom. The corresponding two-tailed p-value is 0.168, which is more than 0.05 and 0.01. Similarly for Aided Brand Recall the t

statistic is 0.499 with 18 degrees of freedom. The corresponding two-tailed p-value is 0.624 which is more than 0.05 and 0.01.

Therefore the null hypothesis is accepted at 5% significance level which means the Brand Recall score of Bollywood Celebrities is same among male and female respondents in Kolkata.

## GROUP STATISTICS

Gender of The Respondents			N	Mean	Std. Deviation	Std. Error Mean
UN AIDED BRAND RECALL SCORE	MALE		10	203.5000	74.07991	23.42613
	FEMALE		10	162.5000	51.66398	16.33758

### Independent Samples Test

		Levene's Test for Equality of Variances		t-test for Equality of Means						
		F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	95% Confidence Interval of the Difference	
									Lower	Upper
UN AIDED BRAND RECALL SCORE	Equal variances assumed	1.215	.285	1.436	18	.168	41.00000	28.56046	-19.00330	101.00330
	Equal variances not assumed			1.436	16.080	.170	41.00000	28.56046	-19.52102	101.52102

### Group Statistics

Gender of The Respondents			N	Mean	Std. Deviation	Std. Error Mean
AIDED BRAND RECALL SCORE	MALE		10	568.4000	448.82518	141.93098
	FEMALE		10	478.3000	353.81007	111.88457

### Independent Samples Test

		Levene's Test for Equality of Variances		t-test for Equality of Means						
		F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	95% Confidence Interval of the Difference	
									Lower	Upper
AIDED BRAND RECALL SCORE	Equal variances assumed	.328	.574	.499	18	.624	90.10000	180.72786	-289.595	469.79515
	Equal variances not assumed			.499	17.069	.624	90.10000	180.72786	-291.084	471.28432

In regard to the second hypothesis, one way between groups ANOVA was conducted. The F value is 67.318 with 3 degrees of freedom for Unaided Brand Recall score and the F value is 12.552 with 3 degrees of freedom for Aided Brand Recall score and both are significant. Multiple comparisons were done and mean difference is significant at 0.05 levels.

Hence the second null hypothesis is rejected and it is evident that the Brand Recall Score of the Bollywood celebrities in the age group (18-25) years is significantly different compared to the other three age groups selected for the study as shown below.

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	428755.800	3	142918.600	67.318	.000
Within Groups	76429.800	36	2123.050		
Total	505185.600	39			

#### UN AIDED BRAND RECALL SCORE

AGE GROUP OF RESPONDENTS	N	Subset for alpha = .05	
	1	2	1
42 TO 49 YEARS	10	10.9000	
34 TO 41 YEARS	10	30.4000	
26 TO 33 YEARS	10	55.7000	
18 TO 25 YEARS	10		268.6000
Sig.		.150	1.000

#### Homogeneous Subsets

#### UN AIDED BRAND RECALL SCORE Tukey HSD

Means for groups in homogeneous subsets are displayed.

a Uses Harmonic Mean Sample Size = 10.000.

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	3725248.075	3	1241749.358	12.552	.000
Within Groups	3561283.700	36	98924.547		
Total	7286531.775	39			

#### AIDED BRAND RECALL SCORE

AGE GROUP OF RESPONDENTS	N	Subset for alpha = .05	
	1	2	1
42 TO 49 YEARS	10	24.4000	
34 TO 41 YEARS	10	90.3000	
26 TO 33 YEARS	10	146.8000	
18 TO 25 YEARS	10		784.8000
Sig.		.820	1.000

#### Homogeneous Subsets

#### AIDED BRAND RECALL SCORE Tukey HSD

Means for groups in homogeneous subsets are displayed.

a Uses Harmonic Mean Sample Size = 10.000.

## DISCUSSION

Effect of celebrity endorsement on Brand Awareness-Recall has been an area of research that has been studied by researchers. A celebrity was better than other endorsers in enhancing brand name recall (Friedman and Friedman 1979).

It is also evident from existing literature that a celebrity was better in enhancing brand name recall than a non-celebrity (Petty et. al. 1983). A physically attractive celebrity paired with an attractiveness-related product could enhance brand name recall (Kahle and Homer 1985).

Celebrity endorsement enhances self-brand connections when consumers aspire to be like the celebrity, but harms them when consumers do not; this effect is more pronounced when the brand image is congruent with the celebrity's image (Escalas and Bettman 2009).

A study conducted among MBA students of Pune in India to determine the association between celebrity advertising and brand recall shows that recall for female celebrity advertisement is lesser compared to that of male celebrity (Dhotre and Bhola 2010).

We have conducted the present study among a wider demographic profile of respondents in Kolkata and it contradicts the findings of the above mentioned study. It is evident from the present study that Brand Recall Score of the male Hindi Film Stars (HFS) is same as the Brand Recall Score of the female Hindi Film Stars (HFS) among both male and female respondents of Kolkata.

Interestingly, different findings emerged from a study conducted by (Costanzo and Goodnight 2005). The results presented in their study, however, found that a celebrity recognized in a magazine advertisement did not increase consumer recall of the brand endorsed by the celebrity for both professional athlete celebrities and other entertainment celebrities who are not professional athletes (Costanzo and Goodnight 2005).

They conducted their study with a convenience sample of business students only but we have conducted the present study with respondents from different demographic profile and not just students in Indian cultural context.

Another study conducted on "Effectiveness of Celebrity Advertisements" by (Rajeswari et. al. 2010) highlighted that factors like age, gender, viewers' status, monthly family income, educational qualification, period of awareness of celebrity advertisements and the type of celebrities (Film stars, Sports stars, Professional models and TV personalities) have close relationship with the level of effectiveness of celebrity advertisements.

The present study is having some resemblance with the above mentioned study and also goes a step further in presenting the fact that there is a substantial variation in Brand Recall Score of Hindi Film Stars (HFS) among the respondents of the four age groups selected for the study. The Brand Recall Score of the Hindi Film Stars (HFS) in the age group (18-25) years is significantly different compared to the other three age groups. It is seen from review of existing literature that Celebrity endorsement



enhances product information and creates awareness among consumers. It helps them to recall the brands of the durable products (Balakrishnan & Kumar 2011).

The findings of the present study is not just having resemblance with the earlier study mentioned above but also takes it forward. The results of the present study not just include brands of Durable products but also Fast Moving Consumer Goods and Service brands.

## **LIMITATIONS & SCOPE FOR FURTHER RESEARCH**

Since the study is conducted with just 10 Bollywood celebrities and is restricted to the geographical region of Kolkata it might go down as a limitation of the present piece of work.

The phenomenon of brand endorsement by celebrities is a contemporary and challenging area for research. In future building on this piece of research, celebrities from other profession and their role in generating brand recall can be studied in a wider geographic context.

## **CONCLUSION**

In today's dynamic and cut throat competitive market environment brands are leaving no stone unturned to connect with their target audience. The Bollywood Celebrities are enjoying high familiarity among the respondents in Kolkata and are endorsing multiple brands across different product categories. They are proficient enough in generating brand recall among respondents of both the gender but their brand recall competency is significantly higher among the respondents in the age group between (18-25) years compared to the respondents of the other age groups who are slightly older.

## **THEORETICAL AND PRACTICAL IMPLICATIONS**

On the academic scene although the phenomenon of Celebrity Brand endorsement have been studied from different perspective across the globe, in Indian context and specially in Kolkata the impact of Bollywood celebrities in generating brand recall is not much evident in existing literature. Therefore in this research a modest attempt has been made to understand the brand building process with Bollywood celebrities in Kolkata which is expected to contribute to the existing body of knowledge.

This piece of research is expected to provide valuable practical insight to advertisers in taking note of the fact that Bollywood Celebrities are having significant Brand Recall among the respondents belonging to the age group (18-25) years in Kolkata.

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## APPENDIX-I

### QUESTIONNAIRE

**Q1)** Have you seen or heard about the following celebrities? (Please put a tick mark in any one of the column)

Sr. No	Celebrities	YES	NO
1	Amitabh Bachchan		
2	Shah Rukh Khan		
3	Amir khan		
4	Saif Ali Khan		
5	Ranbir Kapoor		
6	Salman Khan		
7	Aishwarya Rai Bachchan		
8	Katrina Kaif		
9	Kareena Kapoor		
10	Priyanka Chopra		

**Q2)** Please mentions the name of the **brands/companies** which you think the following celebrities are advertising. **(UNAIDED RECALL)**-

Sr. No	Celebrities (Hindi Film Stars)	Brand/ Company Names
1	Amitabh Bachchan	
2	Shah Rukh Khan	
3	Amir khan	
4	Saif Ali Khan	
5	Ranbir Kapoor	
6	Salman Khan	
7	Aishwarya Rai Bachchan	
8	Katrina Kaif	
9	Kareena Kapoor	

10	Priyanka Chopra	
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Q3) Please mention against each celebrity the serial number of the **Brands/Companies** that you think they advertise. **(Please refer to the lists of brands/company names provided for Bollywood celebrities along with this Questionnaire). Please do not go back to (Q2) after attempting this question.**

Sr. No	Celebrities	Serial Number of Brands
1	Amitabh Bachchan	
2	Shah Rukh Khan	
3	Amir khan	
4	Saif Ali Khan	
5	Ranbir Kapoor	
6	Salman Khan	
7	Aishwarya Rai Bachchan	
8	Katrina Kaif	
9	Kareena Kapoor	
10	Priyanka Chopra	

### Profile of the Respondent

**Name**

**Gender** Male ☐ Female ☐

**Age (years)** (18-25) ☐ (26-33) ☐ (34-41) ☐ (42-49) ☐

**Occupation-** Students ☐ Housewife ☐ Employed ☐ Self Employed ☐ Professionals ☐

**Income (Rs. /Month)** – No Income ☐ up to 15,000 ☐ 15001-30,000 ☐

30,001-45,000 ☐ above 45,000 ☐

**Education:** Up to Class X- ☐ Class XII- ☐ Diploma ☐ Graduation- ☐  
PG- ☐ Ph.D. - ☐

**Date of interview**

**Time**

**Place**

Contact number

Thank you for your valuable time

## Brands Endorsed by Bollywood Celebrities Reference to Q 3

Sr. No	Brand Names	Sr. No	Brand Names
1	COCA COLA	31	GODREJ RENEW
2	BOROPLUS	32	NIKON
3	TATA SKY	33	LUX
4	SLICE	34	LEVIS
5	PEPSODENT	35	LAKME
6	SONA CHANDI CHYWANPRASH	36	SONY VAIO
7	LONGINES	37	NAKSHTRA
8	PARKER	38	VEET
9	AIRTEL	39	DISH TV
10	EVEREADY	40	LAYS
11	SUNFEAST	41	PANASONIC
12	FAIR & HANDSOM	42	TATA DOCOMO
13	L'OREAL	43	PEPSI
14	HERO MOTO CORP	44	MAYUR
15	SAMSUNG MOBILE	45	CHLOROMINT
16	CADBURY DAIRYMILK	46	ASIAN PAINTS
17	VIDEOCON	47	LENEVO LAPTOP
18	PARLE -G	48	ROYAL STAG
19	JOHN PLAYER	49	GITANJALI JEWELS
20	REID & TAYLOR	50	AIRTEL DIGITAL TV
21	TITAN	51	TAJ MAHAL TEA
22	BELMONT	52	HYUNDAI i10
23	TANISQ	53	AIRTEL VOICE MESSAGE
24	TOYOTA INOVA	54	NEROLAC
25	BINANI CEMENT	55	ICICI PRUDENTIAL
26	PANTENE	56	GARNIER
27	NOKIA	57	NAVRATNA OIL
28	VIVEL	58	JUST DIAL
29	LINC	59	GUJRAT TOURISM
30	ASMI JEWELLERS	60	IIPM

## INNOVATIVE STARTUPS, THE IMPACT OF FOUNDERS' CHARACTERISTICS ON THE EARLY STAGE: A CLUSTER ANALYSIS

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### ABSTRACT

The paper aims at analyzing the process of startup creation at its very early stage, investigating the connection between the distinctive traits of the entrepreneurs and the arising profiles of the new ventures. In order to do so, we performed a cluster analysis on a sample of Italian innovative startups and their founders. The peculiar features that are statistically significant for the clusterization provide useful information on the initial phases of the innovative venture creation. The results of our exploratory study yield valuable knowledge on the Italian context. Findings suggest that some specific traits of the entrepreneurial profile of the new venture (mainly educational background and previous experience), may have an initial imprinting effect on its firm profile and, hence, its likelihood to grow and to be successful.

**Keywords:** *new venture/startup, entrepreneurial profile, founders, founding team/early founding team/new venture team, fundraising.*

### INTRODUCTION

The positive impact that new venture creation has on economic growth, innovation and job creation has been proved (Audretsch, 2003). Entrepreneurs are responsible for the economic development through the introduction of innovative ideas, in terms of products, processes, markets and organization. In order to reach this goal an entrepreneur must be able to successfully implement these innovations, which means to satisfy a (new) customer and thus, across job supply, providing economic growth. As stressed by Cuervo, Ribeiro and Roig (2010), the competitiveness of a country's firms, which determines the creation of its wealth and dynamism, relies fundamentally on the capabilities of its entrepreneurs and managers. As reported by Reynolds (2004), the junction or "choice point" in which an individual decides to get into the startup process is influenced by three groups of variables, those related to individuals, their characteristics and personal background, to their motivations and cognitive features, and finally to the context or environment in which the process takes place. From each of these variables depends the output of the process that is the

possibility that the firm is born, develops and grows, or that it ceases. Therefore, creating a new firm is not so simple. It takes different abilities, knowledge and skills, whose impact on the process may depend on the stage of its development (Klotz et al., 2014). For this reason, and given the relevance of the phenomenon of new venture creation, this paper attempts to shed new light on the role played by the characteristics of the entrepreneur(s) in the very early stage of the above mentioned startup process. Thus, we think that the proposed cluster analysis may help in providing useful information on the process of new ventures creation. The study is focused on a specific national context, Italy.

The paper is structured in 4 sections. Section 1 provides a comprehensively review of the literature on entrepreneurial characteristics affecting the startup process. On the basis of the theoretical framework previously described, section 2 presents the research design and the methodology. Section 3 describes the analytical procedure and cluster profiles. Section 4 discusses findings, provides concluding remarks and future research implications.

## **LITERATURE REVIEW: THE ENTREPRENEURIAL PROFILE AND THE STARTUP PROCESS**

In prevailing literature, entrepreneurship is often linked to the discovery and exploitation of profit opportunities (March, 1991). Anyway, as noted by Freeman (1982), firms do not arise spontaneously from opportunities in the absence of human action, but instead are founded through the exploitation of organizational efforts made by individuals. This is consistent with more recent literature on the so called “personality approach/perspective” on opportunity identification, i.e. an individual’s unique personality is assumed as the key driving force for entrepreneurial activity. Many authors distinguish entrepreneurs from other individuals by looking for particular cognitive traits, such as risk propensity, need for achievement and self-confidence (Brockhaus, 1980) in order to detect the individual traits that delineate the successful entrepreneur (Timmons and Spinelli, 1994). In particular, two factors are strongly related to the ability to identify new business opportunities: entrepreneurial alertness, i.e. a unique attitude to sense environmental variations and recognize related opportunities (Kirzner, 1978) and prior knowledge and experience (Shane, 2000). Aldrich and Zimmer (1986) pointed out that a more comprehensive explanation for new firm creation would be that of specifying how individual experience impacts the likelihood that people will found firms. Individual’s prior knowledge and experience could be considered both as arising from work experience (Cooper et al., 1994), as well as from education (Gimeno et al., 1997). An organic attempt to systematize the field of study of entrepreneurship was made by the Entrepreneurship Research Consortium (ERC). The ERC demonstrated that for developing a representative portrait of entrepreneurial activity, individuals should be studied in real time, while involved in the startup process (Gartner et al., 2004). In doing so,



they classified the main variables affecting new venture creation. The first group of variables relates to the individual's personal characteristics, such as: age, gender, race and ethnicity, region of residence, household structure, personal background (i.e. educational background, work experience and functional expertise). The second group is related to the entrepreneur's cognitive features, i.e. motivational drivers that lead an individual to choose the entrepreneurial career rather than others. As pointed out by Shaver (1985), reasons for getting into a business (or not) matter, because they are generally considered as the basis of intentions.

Even though prevailing literature on entrepreneurship seems to be concentrated on the role of the individual entrepreneur, today new innovative firms are more likely to be founded by teams rather than individuals (Gartner et al., 1994; Beckman, 2006). To this regard, Cooper and Daily (1997) found that successful high-growth firms are usually built around a team. Further studies reported that team-founded firms have higher success rates, if compared to firms started by single founders (Ensley et al., 2006). In particular, scholars have increasingly recognized the role played by founding teams/early founding teams/new venture teams (NVT) (Ucbasaran et al., 2003; Klotz et al., 2014) in shaping the new venture in its early stages of development and growth. Research on NVTs has focused mainly on the impact that factors such as team members' basic demographic features, team composition, team members' networks, have on new venture performance. Insofar, studies on NVTs analyze how experience (education background, specialization and functional experience) of team members positively affect firm performance (Beckman, 2006). Furthermore, the relationship between NVT composition, i.e. heterogeneity vs. homogeneity (educational background, age, diversity of views and skills of each team member), and firm performance despite being in-depth investigated still remains an open/controversial issue (Hmieleski and Ensley, 2007). Social capital and business network are other important NVT input variables. Furthermore, Wright, Hmieleski, Siegel and Ensley (2007) assert that there is a lack of knowledge regarding how individuals and teams impact the effectiveness through which innovative ventures are created and subsequently grown. They also underline the central role played by individuals and teams in the development and growth of technology-based ventures. This is why studying the formation of startup companies means analyzing the characteristics of their founders and how these features affect the output of the entrepreneurial process, i.e. the "initial imprinting effect of NVT" (Klotz et al., 2014).

#### *Gaps identified and research focus*

There are not many empirical/qualitative updated works related to the analysis on the characteristics of Italian startups and their founders, although this topic is of primary importance to understand the startup process. The novelty of this work is, thus, represented by the exploration of a population on which we have no great prior knowledge, in a significant, yet peculiar, phase of its life. Under this

perspective, our work differentiates itself from other studies (Grandi and Grimaldi, 2003; Colombo et al., 2004; Colombo and Grilli, 2010; Colombo and Piva, 2012) mainly because of the analysis performed (no previous cluster analysis on the population of Italian startup/NVT) and the target population (focus on a very early stage). In our analysis we try to collect knowledge on startups' characteristics during the very first steps of their lives, and not ex post. As reported by Foo, Wong and Ong (2005), we know little about early phases of teams engaged in new venture activities and how variables as human capital affect team outcomes. The broad majority of researches on this matter are often performed when the venture has already successfully formed. One major challenge of studying early entrepreneurship in the Italian scenario is, as reported by Colombo and Piva (2012), to find complete information and univocal estimates on the Italian population of new innovative ventures. This is due to the fact that most individuals who are defined as "self-employed" by official statistics actually are salaried workers with atypical employment contracts. On the basis of official data, such individuals cannot be distinguished from entrepreneurs that create new ventures (Colombo and Grilli, 2005). The relevance of this work is represented by the exploration of a population that has so far been little studied, because of the already mentioned difficulties, and is in a peculiar instant of its life. For these reasons it is so important to look at startups even when they are not yet fully incorporated or operative, to better figure out how they evolve and what are the characteristics driving this evolution.

## RESEARCH DESIGN AND METHODOLOGY

The core of this study is to explore the characteristics of Italian startups and of their founders, as a team and as individual entrepreneurs, as these topics appear to be the most critical factors both in the startup process and for company development and growth (Ucbasaran et al., 2003). We also focus on factors enhancing the development of the business idea and on team formation, analyzing factors that refer to the startup as a whole ("company specific factors") as well as to single individuals composing the entrepreneurial team ("human capital"). In our work we combine data profiling the new ventures with the aggregation at team level of the individual characteristics of team members (i.e. entrepreneurs). Throughout this union we aim at identifying consistent clusters and the features that are significant for clusterization. In doing so we used dummy and categorical ordinal variables and we classified them using hierarchical cluster analysis. We run the classification following a post-hoc or no a priori technique, whose purpose is to define groups according to the data, as explained by Wedel and Kamakura (2002). In order to perform our analysis we chose the method of cluster analysis, since it "...can provide very rich descriptions of configurations without overspecifying the model" (1996, p. 442). As measure of proximity we use the squared Euclidean distance, and the hierarchical method is used to approach the analysis. Since we aim at producing an exploratory classification of observations,

taking into account that neither the clustering variables nor the number and nature of the resultant groups are strictly linked to deductive theory, the chosen method to identify clustering variables is the inductive one. In fact, as suggested by Ketchen and Shook (1996), we tried to consider as many variables as possible because it was not foreseeable what variables differentiate among observations. Moreover, as reported by Punj and Stewart (1983), there are no clear guidelines to determine the boundaries of clusters. Therefore, the use of many clustering variables is expected to maximize the likelihood of discovering meaningful differences. Due to the fact that our sample of data does not contain outliers, we decided not to use variables standardization. After transforming non-ordinal categorical variables into dummy variables, we needed to correct multicollinearity of data by reducing from  $k$  to  $k - 1$  the possible modalities that the variable can assume. We also performed several tests to assess that this operation does not compromise the quality of the information provided.

To perform our analysis we chose a hierarchical algorithm that is the Ward's method (Ward, 1963). As stressed by Ketchen and Shook (1996), Ward's method is best suited for studies that present two characteristics: (i) the number of observations in each cluster are expected to be approximately equal; (ii) there are no outliers. Within our data set, it assigns observations with similar entrepreneurial and firm characteristics into progressively larger endogenously determined clusters. For determining the number of clusters in a data set, with regard to hierarchical methods, we followed the basic procedure as explained by Ketchen and Shook (1996). In order to evaluate the reliability of the obtained results we performed cluster analysis multiple times, changing algorithms and methods. In this way reliability is indicated by the degree of consistency in solutions (Ketchen and Shook, 1996).

#### *Sample description*

The final sample is composed of 107 Italian innovative startups and 254 entrepreneurs, spread into the different founding teams. Data were collected by the Mind the Bridge Foundation (MTB), a non-profit (501 c3) corporation based in San Francisco, through its business plan competition thought to scout new business projects with a strong commitment to innovation and marked ambitions of growth. As stated by Foo, Wong and Ong (2005), using data of participants of a business plan competition can be quite useful and relevant (i.e.: identify teams engaged in the early stages of the entrepreneurial process; scout firms and founders characteristics and perform longitudinal studies, monitoring the phenomenon in a specific area or region). The questionnaire submitted to the founders of the startups participating to the MTB Business Plan Competition was designed by MTB-CrESIT (Research Centre for Innovation and Life Science Management of Insubria University). More specifically, data gathered contains information on the new venture, such as the year of incorporation and place of establishment,

sector, number of founders, business description and available market data, company investment profile (capital raised and investors typology). Moreover, demographic information on the founders and management's team are collected, such as date and place of birth, gender, education path, role played in the new venture, prior working experiences and prior entrepreneurial experience. Answers were on a voluntary basis and respondents could complete the questionnaire from June to July 2012. A small part of the received applications were discarded as being partially incomplete.

## FINDINGS: ANALYTICAL PROCEDURE AND CLUSTER PROFILES

The analytical procedure we performed consisted of three main stages: identification of the number of clusters, assignation of observations to clusters, assessment of the stability of cluster's solution (Stock and Zacharias, 2011). The findings of our analysis consist of three clusters, each one with its own characterization, and a set of variables which turned out to be significant for clusterization. The identification of the number of clusters was made using the dendrogram, as there were no significant jumps in the agglomeration coefficients. After the identification of the number of clusters by using the Ward linkage, the 107 firms of the sample are assigned into the three groups. The following table 1 summarizes the cluster distribution of variables, included in the research model, as a percentage of the total.

The level of significance of each variable is verified through a Chi-Square test. To calculate Chi-Square ( $\chi^2$ ), we used a cross-tabulation which shows the frequencies of joint occurrences between variables. We tested the significance using  $\alpha = 0.05$ . There are five variables that are significant for the clusterization (p-value < 0.05), which are the following: (i) the startup has been funded ( $\chi^2 = 28.08$ ; df<sup>1</sup> 2; p-value 0.000); (ii) the amount of capital raised to date ( $\chi^2 = 85.979$ ; df 14; p-value 0.000); (iii) at least one co-founder has one previous job experience ( $\chi^2 = 17.942$ ; df 2; p-value 0.000); (iv) average number of previous work experiences, as an aggregate of the team ( $\chi^2 = 35.344$ ; df 4; p-value 0.000); (v) average years of previous job experience, as an aggregate of the team ( $\chi^2 = 52.584$ ; df 12; p-value 0.000).

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<sup>1</sup>  $df = \# \text{ of categories} - 1$

**Table 1: Cluster distribution of variables**

		Clusters				
Variables as a percentage of the cluster		1	2	3		
Cluster Distribution ( <i>excluding cases = 0,9%</i> )		19.5%	50%	29.6%		
Startup Description	Life Science Industry	0%	2%	0%		
	Consumer Products Industry	0%	6%	3%		
	Web based Industry	48%	52%	59%		
	ICT Industry	14%	28%	28%		
	Electronics Industry	14%	2%	3%		
Startup Description	Number of Founders:					
	1 Founder	24%	22%	22%		
	From 2 to 3 Founders	57%	65%	56%		
	From 4 to 5 Founders	19%	13%	22%		
Startup Funding Profile	The firm has raised funds	71%	44%	100%		
	Total amount of funds raised to date:					
	From € 0k to 0,9k	29%	56%	0%		
	From € 1k to 10k	38%	22%	0%		
	From € 10,1k to 25k	10%	13%	3%		
	From € 25,1k to 50k	14%	9%	19%		
	From € 50,1k to 100k	10%	0%	25%		
	From € 100,1k to 200k	0%	0%	19%		
	From € 200,1k to 500k	0%	0%	25%		
	More than € 500k	0%	0%	9%		
	Co-founders are the main source of funding	57%	33%	47%		
	Relatives and friends are the main source of funding	5%	2%	0%		
	Banks are the main source of funding	0%	2%	9%		
	Other companies are the main source of funding	0%	0%	3%		
	Angel investors are the main source of funding	5%	4%	13%		
	Super angel investors are the main source of funding	0%	0%	6%		
	Foundations are the main source of funding	5%	0%	3%		
	Accelerators are the main source of funding	0%	0%	6%		
	Venture capitals are the main source of funding	0%	0%	6%		
	Startup Drivers	Foundation	Team met during Bachelor’s degree	29%	17%	19%
Team met during Ph.D. studies			5%	19%	6%	
Team met at work place			43%	46%	50%	
Team met because of family connections			5%	17%	6%	
Team met because of friends			38%	31%	38%	
Team met in other ways			19%	17%	19%	
The source of the business idea was/were:						
Bachelor’s Degree			29%	9%	9%	
Master’s Degree			33%	13%	25%	
Ph.D. studies			0%	7%	13%	
Research activities			19%	31%	22%	
Working in the industry			43%	54%	59%	
Other			14%	22%	9%	
Team Aggregate Profile			At least one co-founder lives abroad	10%	13%	9%
			At least one co-founder was born abroad	5%	11%	13%
	At least one co-founder is a woman	14%	20%	16%		
	The average age of the team is:					
	From 18 to 24 years old	10%	0%	3%		
	From 25 to 34 years old	57%	43%	56%		

	From 35 to 44 years old	24%	50%	31%
	From 45 to 54 years old	5%	7%	6%
	More than 54 years old	5%	0%	3%
	At least one co-founder has a Bachelor's degree	81%	61%	75%
	At least one co-founder has a Bachelor's degree in Engineering	33%	11%	16%
	At least one co-founder has a Bachelor's degree in Business Administration	14%	20%	28%
	At least one co-founder attained Bachelor's degree abroad	5%	7%	3%
	At least one co-founder has a Master's degree	43%	69%	69%
	At least one co-founder has a Master's degree in Engineering	14%	17%	13%
	At least one co-founder has a Master's degree in Business Administration	14%	26%	31%
	At least one co-founder attained Master's degree abroad	0%	11%	13%
	At least one co-founder has a Ph.D.	14%	17%	13%
	At least one co-founder has a MBA	0%	7%	9%
<b>Team Aggregate Profile</b>	At least one co-founder attained Ph.D. abroad	0%	4%	6%
	At least one co-founder attained MBA abroad	0%	2%	3%
	At least one co-founder has a patent	0%	4%	6%
	At least one co-founder has a previous job experience	71%	100%	94%
	Average number of previous job experiences:			
	Less than 1	76%	13%	16%
	From 1 to 2	19%	33%	38%
	More than 2	5%	54%	47%
	At least one co-founder had one job experience abroad	14%	33%	31%
	Average years of job experience:			
	Less than 1 year	52%	0%	9%
	From 1 to 3 years	24%	6%	6%
	From 4 to 7 years	19%	24%	34%
	From 8 to 11 years	5%	33%	28%
	From 12 to 17 years	0%	20%	13%
	From 18 to 25 years	0%	11%	6%
	More than 25 years	0%	6%	3%
	At least one co-founder had one previous entrepreneurial experience	48%	41%	38%
	Total number of previous entrepreneurial experiences:			
	No previous one	52%	59%	63%
	1 previous experience	10%	17%	6%
	2 previous experiences	24%	15%	22%
	3 previous experiences	10%	6%	6%
	4 previous experiences	5%	4%	3%

The following table 2 summarizes the characteristics of the three identified clusters. The clusters profiles show significant differences in terms of entrepreneurial profile (mainly educational background and previous experience also at international level) and in terms of startup fundraising ability (amount and source of funding).

**Table 2: Summary of clusters profiles**

	<b>Techno entrepreneurs</b> - <b>1<sup>st</sup> generation startups</b> (19.5%)	<b>Employees turned entrepreneurs</b> - <b>Born into crisis startups</b> (50%)	<b>Proven entrepreneurs</b> - <b>Scalable startups</b> (29.6%)
<b>Entrepreneurial profile</b>	Technical background Startup is their first work experience Prior entrepreneurial attempts Scarce managerial background No prior job experience	Several previous job experiences Long career as employees Low entrepreneurial attitude	High level of education Solid managerial background Prior job and entrepreneurial experiences International experience
<b>Firm profile</b>	Mainly funded through Bootstrapping One-man bands or small teams Business idea originated during the educational path	Limited ability to attract funds Business idea originated within work environment	Outstanding ability to raise capital and attract structured sources of funding Larger teams

According to the distinctive features characterizing the identified clusters, we titled: Cluster 1: Techno entrepreneurs - 1<sup>st</sup> generation startups; Cluster 2: Employees turned entrepreneurs - Born into crisis startups; Cluster 3: Proven entrepreneurs - Scalable startups.

## DISCUSSION AND CONCLUSION

### *Cluster 1: Techno entrepreneurs - 1<sup>st</sup> generation startups*

“Techno entrepreneurs” are young entrepreneurs with a prevailing technical background and no prior job experience. In the majority of cases techno-startuppers are young adults whose first job experience is represented by the creation of a startup. In other cases, they are research fellows with a technical profile. Some of the latter declare previous entrepreneurial experience, although more likely via academic spin-offs rather than startups per se. The companies created by techno-startuppers (that we define as “1<sup>st</sup> generation startups”) raise funds mainly from co-founders (57%). The average amount of

capital received is quite small, comprised between 1 and 10 thousand Euros (38%). Some peculiar traits of these founders may explain why these startups raise limited funding. These include weak managerial background and almost no prior work experience that may compromise their ability in attracting more structured sources of funding. The founding teams are pretty lean (24% of the startups included in this cluster are one-man bands, i.e. only one founder). These ventures operate mainly in high-tech fields. Not surprisingly, the inspirational source of their business idea is represented primarily (62%) by the educational path undertaken by the co-founders, which is also responsible for their team formation often at an academic institution.

*Cluster 2: Employees turned entrepreneurs - Born into crisis startups*

Founding teams within this group are formed by individuals who mainly come from more conventional job positions. In fact, as reported by recent studies published by Italian Chambers of Commerce, with the advent of the financial crisis a lot of people who lost or were unsatisfied with their jobs reinvented themselves into startupper (a sort of “career pivoting”). This explains why among these teams we find individuals with a high level of job experience and long employment tenure. For these reasons we decided to label them as “Employees turned Entrepreneurs”. Individual achievement in many cases acts as a trigger in the decision of such individuals to become entrepreneurs. Thus, the need for independence and for self-recognition may turn into a strong push to become self-employed (Johnson et al., 2004). The companies created by these employees-turned-startupper are what we define “Born into crisis startups”. Within this cluster, startups show a limited ability to raise capital (only 44% of them received external funds). The co-founders background is responsible for the low entrepreneurial attitude characterizing these startups. The prior work environment plays a critical role in this group, being the main source of inspiration of the business idea. Note that in 20% of the teams there is at least one female co-founder.

*Cluster 3: Proven entrepreneurs - Scalable startups*

Proven entrepreneurs are highly educated and experienced. This group is characterized by the highest level of education: 13% of the founders have a Ph.D. and almost one out of ten a MBA. They have strong managerial background (more than half of them have a degree in Business Administration) and are quite experienced. Almost all of them present prior job experience and 38% a previous entrepreneurial experience. Such percentage may look a little small. In fact, we believe that teams involved in these startups are driven and motivated by a precise and structured entrepreneurial idea, which explains why they are so good at fundraising. Furthermore, these founding teams present a broad international experience, as 31% of the co-founders had at least one job experience abroad and 25% attained a degree in a foreign university. The work environment (50%) represents the most



common place for future co-founders first meeting. This could mean that after they met and developed the business idea, which has quite varied origins, into an effective business model (Onetti et al., 2012; Onetti and Zucchella, 2014), they decided to become full-time entrepreneurs. Co-founders are characterized by different sources of specific knowledge, performing a good balance between technical and managerial skills. This seems to be a successful ingredient for the exploitation of the business idea. Evidence of this success is provided by the high amount of funds raised by these startups. Thus, we called the founders of such startups “Proven Entrepreneurs”. We define the companies that originated by these teams as “Scalable Startups”, since these ventures have greater efficacy in raising capital and, therefore, higher chances to succeed. All of them were successful at fundraising, and more than 30% raised more than 200 thousand Euros (50% more than 100 thousand Euros). They were able to attract funds from structured sources such as seed funds, foundations, accelerators and venture capitalists. Teams tend to be larger (22% of them are composed of more than four founders).

According to these clusters, some general considerations emerge. The degree of fundraising is significantly different. The first cluster displays scarce variety among the sources of funding and a limited ability to obtain medium-high amounts of capital. The second group shows limited abilities to raise capital: small percentage of firms with little funding. The third cluster, instead, presents an outstanding ability in raising money. The level of job experience of the founders is also fairly varied. The first cluster has a low level of experience at the aggregate level, both in terms of number of previous jobs and years of employment. The second group includes a sample of firms whose founders show a high level of work experience. The third cluster displays a good level of job experience and a stronger international attitude. These results are supported by literature. In fact, Shane and Khurana (2003) affirm that differences in career experience lead to differences in evaluations, by potential entrepreneurs themselves and by others, of an entrepreneur’s ability to: (i) access resources that help entrepreneurs in starting organizations; (ii) adapt to the role of the entrepreneur; (iii) continuously adapt the business model to market needs/changes.

Therefore, previous work experience is key in both venture creation and fundraising. First of all, Haveman and Cohen (1994) argue that individual’s career experiences have an impact on firms foundings. Furthermore, Shane and Khurana (2003) stress out that one of founders’ harder task is to convince others to reallocate resources in non-traditional ways. They state that if individuals are successful in their prior careers, they will be more likely able to convince not only potential investors, but also employees and other stakeholders. Hence, prior experience and career is positively related to the ability of obtaining resources. Shane and Cable (2002) provide evidence that experience is positively related to the ability of obtaining resources. For instance, they show that prior

entrepreneurial experience is an important predictor of the ability to obtain funds for a new venture. We have also seen that to be relevant for the final output are the characteristics of the entrepreneurial team as a whole. Indeed, today at the helm of innovative firms it is more likely to find NVT rather than one-man bands.

We believe these results to be very interesting, as they remark how work and international experience are crucial success factors for startups at the very early stage, as those participating to a business plan competition. In fact, these features are strong enablers of fundraising, which happens to be vital at this particular time, allowing startups to get off the ground and consequently grow. Then, our findings support the argument, inspired by competence-based theories, that founders' capabilities and knowledge are a driver for startups growth. Innovative firms founded by individuals who have a higher level of work experience exhibit superior growth, with all else equal (Colombo and Grilli, 2005). Moreover, Colombo and Grilli (2005) asserted that startups established by such individuals are more likely to obtain external private equity financing, which of course has a sizeable positive effect on growth. The latter relationship is clearly visible in our results as well. Founders of firm belonging to cluster 3, in fact, present qualified international working experiences, so contributing to their startups' ability to attract huge amount of funds from various sources.

With regard to further research, we identified two directions that, in our opinion, appear to be especially promising. First of all, recent studies (Klotz et al., 2014) suggest to examine how the characteristics of the firm are influenced by the stage of team development. For instance, firms and teams features may differ from the idea evolution phase to the exploitation phase. From the results presented in this work, it seems clear what are the team characteristics driving the startup evolution at a very early stage. Further analysis could highlight how those features may differ when the company reaches a later stage of development and fundraising is no longer the primary need. In addition, a cross-country analysis should be performed to better understand the positioning of the Italian startup ecosystem, and to allow to overcome the country specificities of the sample that lead to results that are not fully generalizable. Since accounting for the role of individuals in the startup process is critical for advancing theory, a cross-country comparison of sample of entrepreneurs/new venture teams may represent stimulating challenges for future research.

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## **RADICAL INNOVATION OF BUSINESS MODEL- LESSONS FROM A BUSINESS-TO-BUSINESS SERVICES CASE**

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### **ABSTRACT**

The concept of business modeling is fairly new and has been discussed in academia the last ten years (Amit & Zott, 2001; Chesbrough & Rosenbloom, 2002; Osterwalder, 2004; Chesbrough & Schwartz, 2007; Chesbrough, 2010; Yunus, Moingeon & Lehmann-Ortega, 2010; Teece, 2010; Stähler, 2002/2013-08-05). But in many ways it has similarities with the earlier concepts of dominant logic (Prahalad & Bettis, 1986; Bettis & Prahalad, 1995), and strategic fit (Porter, 1996).

This paper is an action research based case study of business modeling from idea conception to complete implementation. The presented case shows business modeling is a key to achieving strategic competitive advantage. More case studies will improve the scientific understanding of business modeling at the present stage of development.

**Keywords:** *business model, value, customer needs, competitive advantage, dominant logic, strategy.*

### **BACKGROUND**

The concept of business modeling is fairly new and has been discussed in academia the last ten years (Amit & Zott, 2001; Chesbrough & Rosenbloom, 2002; Osterwalder, 2004; Chesbrough & Schwartz, 2007; Chesbrough, 2010; Yunus, Moingeon & Lehmann-Ortega, 2010; Teece, 2010; Stähler, 2002/2013-08-05). But in many ways it has similarities with the earlier concepts of dominant logic (Prahalad & Bettis, 1986; Bettis & Prahalad, 1995), and strategic fit (Porter, 1996).

Both theoretically and practically there is a lack of studies: "The paucity of literature (both theoretical and practical) on the topic is remarkable, given the importance of business design, particularly in the context of innovation. The economics literature has failed to even flag the importance of the phenomenon, in part because of an implicit assumption that markets are perfect or very nearly so. The strategy and organizations literature has done little better. Like other interdisciplinary topics, business models are frequently mentioned but rarely analyzed...", Teece (2010:192).

One reason may be that it draws from and integrates a variety of academic and functional disciplines, gaining prominence in none, Chesbrough & Rosenbloom (2002:533). And for practitioners Bettis & Prahalad (1995:7) suggest that their research suggested how difficult highly intelligent managers found thinking strategically about businesses with different characteristics or their own core business, when the industry structure changed significantly.

Hence, it is still valid to present and interpret practical examples in the form of cases of business modeling. We provide such a case based on our own action research.

## **THE CASE, ABB TRUCK SERVICE**

Between 1982 and 1995 I worked as a management consultant for the ABB group. In 1988 Bengt Svensson, then CEO of ABB Truck - a subsidiary of ABB - suggested that I should re-engineer the business rationale of the service division of the company. ABB Truck produced big electrical forklift trucks for the European car, food and roll-on/roll-off industry. They lifted between 1,2 and 7 ton. On the Swedish market the service business had some 225 service technicians and 75 middle managers and administrators. The blue-collar workers' union enthusiastically supported the project. ABB Truck Service was a business unit of ABB Truck AB, serving and repairing complicated machines at the customers' sites.

## **THE TASK**

The task was formulated as to radically improve the value for the industrial customers, which was interpreted as halving the down-time of the machines, and to radically reduce costs, in order to be competitive in the long run – give value for money. We also wanted to give the service technicians a better work environment by empowerment. Their union was interested in this aspect as well as to ensure the long-term competitiveness of the company, hence securing the jobs. This ensured their co-operation. As we intended to radically reduce the number of white-collar jobs, we did not expect to be able to co-operate with the white-collar union.

## **THE RE-ENGINEERING PROCESS**

The objective of the project was to make the service radically more effective, eventually affecting the price of the services, as well as increasing the quality of the services. The local chair of the blue-collar workers union, "Metal", "Johan S." was heavily involved both in the envision and realization of the system.

The process was conducted in seven distinct but overlapping phases: 1) Formulate a new business idea, 2) Innovating a new way of organizing the business, 3) Develop new systems supporting the new organization, 4) Develop new routines for how to use the new system, 5) Educating the work force in the new work methods, systems and routines, 6) Implementation of the new organization, and 7) Rationalization to achieve the second goal.

## **A NEW BUSINESS MODEL**

We started by building a vision for how the division would function 7 years after the start of the project. The Service workers should be become 'virtual entrepreneurs', ordering spare parts and reporting work done. Through portable computers, with mobile phones as modems the technician should access exploded blueprints on central server for searching solutions to the problems with the faulting machine. Then the technician would order spare parts over the computer. These were flown in and arrived at the customer's site the next day. After repair the technician reported his work through the server. An invoice was automatically generated and sent to the customer. With a printer under the passenger seat of the service car the technician would give the customers small quotes. Hence, an integrated workflow.

## **NEW CONCEPT OF ORGANIZING THE BUSINESS; NEW WORKFLOW**

The number of workshops was to be reduced, the lion's share would be done by technician at the customer's site and only occasionally would a machine be brought in to the workshop. We would centralize the spare parts warehouse to enable overnight delivery from the nation's principle airport; there would no longer be any spare parts administrators at local workshop. The new workflow was developed with detailed flow-mapping and was discussed in a reference group including the CEO of ABB Truck, the union leader, the division manager and the division controller.

## **NEW SYSTEMS**

I then specified a systems architecture that could uphold this vision. I specified a central server, an IBM AS400 machine. It hosted all manuals with construction designs that could be "exploded" down to the smallest level of detail. It also hosted the database of the spare parts warehouse.

Then I designed the architecture for a client for the technicians. I verified every step of the coding and was the interface between business and information technology. To actually make the necessary server and client software, a computer consultancy was engaged. Installed in a portable computer, they were

given access to the server through a dial-up connection over a mobile phone. They also had a small printer installed under the passenger seat of their car.

The work included 1) Functional specification of new spare parts system, 2) Functional specification of technicians' order and reporting system, and 3) Project management of systematization and programming done by outside computer consultants.

## **NEW ROUTINES**

The implementation was not self-evident. I developed a model routine to learn the workers and leaders what to make out of the system.

## **EDUCATING THE WORK FORCE**

Together with the labor union's representatives we educated the technicians in the use of the systems and the routines.

## **IMPLEMENTATION**

The new spare parts center was built near Arlanda, outside Stockholm. Personal computers, mobile phones, and printers were bought for 225 technicians. In 1992, four years after the project had started, all technicians had received education and the necessary equipment.

## **RATIONALIZATION**

As a major rationalization was that two-thirds of the 75 administrators were made redundant. Most of them were given pre-pension or other jobs in the ABB group. This rationalization of course influenced the future price of the service, and hence the value offered to clients.

## **RESULTS**

Downtime of customers' machines were reduced from 3 days to 1,5 day. OH reduced from 75 to 25 employees. The change took 4 years, from 1988 to 1992. When the whole ABB Truck group was taken over by Cargotec some years later, they closed the whole company except the new way of operating the service, giving it a value of 200 MUSD.

The most important effects were enhanced *quality of service*:



- The instant access to manuals reduced the time to find the defective detail and hence the time the machine was non-operational.
- The technician previously had ordered the spare part by phone from a local spare parts centre, where an administrator would manually identify if he had the part in stock. If not he had to order it from the factory. Often this entailed delays of three to four days. In the new organization the immediate order of spare-parts reduced the time to get the part, and hence the time the machine was non-operational. The missing part was sent by parcel post the same day from a centralized shipment center close to Arlanda, the main Swedish airport, arriving at the client's site before noon the next day.
- The technicians were authorized to give the client minor quotes (up to some 1000 euros in present value), immediately printing the quote on his printer.
- The technician reported work time and the spare parts used over the system, directly generating an invoice in the central server. Apart from being the most important rationalising element, it meant that the quality of the information of the invoice increased, passing information directly from the primary source to the invoice.

All this were only changes in the technological service support system, but all of them radically increased the quality of service as well as decreasing the cost and hence the future price of the service.

The overall process can be viewed as a design process, where the service was engineered or re-engineered. This design has consequences for the technological support system as well as for the actual service delivery system, both of the latter influencing the quality of service.

The business was limited to the Swedish market, as the mother company; ABB Truck AB, only sold to the European market and did not have a large enough market share outside Sweden to motivate a repair and service business, which instead was done by the partners' selling the machines.

## THEORETICAL INTERPRETATIONS

This case is an example of organizational innovation. "...new business models can themselves represent a form of innovation.", Teece (2010:176). To change the 'dominant logic', Bettis & Prahalad (1995), cf. also Levitt (1960), in an industry, it is necessary to establish radical goals for the project. These goals are an example of what Prahalad (2006) calls the 'innovation sandbox', the challenging requirements for the project that is the necessary for radical innovation. You should "...start by identifying the core constraints that they must overcome to achieve a breakthrough innovation.", Prahalad (2006:3). To halve the down-time is different from incremental innovation based on gradual increase of effectiveness. The requirement to reduce the overhead with more than 50% was also radical. Both requirements were inspired by the at the time current 'T50'-projects

(halve-the-time) running in the ABB group. Of course the demands were less radical than the examples Prahalad (2012) gives of reducing the price for cataract surgery or a cooker for the Indian poor to 1/50<sup>th</sup> of the running price, but it is still radical, as the theoretical limit of the machine down-time – by flying in spare-parts 'à la minute' – would be some 6 hours and to an exuberant, not sustainable cost. We had to base our change on standardised parcel-post.

## CUSTOMER NEEDS

"The chances of good design are greater if entrepreneurs and managers have a deep understanding of user needs...", Teece (2010:190). The formulation of the principles of the organisational change, must be based on intimate knowledge of the customers' needs, "The starting point of the process was a detailed and in-depth understanding of the consumer...", Prahalad (2012:7). Innovations are often "...based on intuitive hunches rather than informed understanding...", Margolin (1997:227). See also Prahalad (2010). "Rather than researching markets, they must immerse themselves in the lives of their target consumers.", Prahalad (2006:7). Prahalad (2012:7) used video-ethnography to identify not only what people *say* they need. Many researchers have identified this intimate knowledge as a key for successful innovation and competitiveness. The strategy researcher Porter (1990) identified 'commitment' to the target group as a key antecedent to international competitiveness. This commitment permits the firm to gain an intimate knowledge of the customers. The entrepreneurship researcher von Hippel (1994) identified the 'stickyness' of needs information as a key issue for innovation, i.e. how to understand customers' needs. Instead of ethnography von Hippel developed a method called the lead-user theory for how to learn these needs before the competitors, von Hippel (1986); Herstatt & von Hippel (1992); Urban, & von Hippel (1998); Olson & Bakke (2001); Liien et al. (2002); Lüthje & Herstatt (2004); Lettl et al. (2006), and Franke et al. (2006). These issues are discussed in many journals in different subfields, but the most important are 'Management Science', 'The Journal of Product Innovation Management', and 'Design Studies'.

In the case I was not only a consultant with a specific task. I had worked with ABB Truck since 1985 (and with ABB since 1982) and had been working with organizational change in marketing, production, services, and made the specification for software to manage the short term rental fleet. During 8 months I was hired as regional general manager for sales and services, and negotiated a five-year rental contract (capital and service) with the Volvo Car corporation for 500 machines. I had an intimate knowledge of the business and the customers through visiting customers, and used the knowledge of other employees, most prominently that of the CEO and the union leader. But in retrospect it was *risky* not conducting a more systematic in-depth study of the needs of the clients.

## BUSINESS MODEL

Research about business models is young, and "...relatively little concepts and tools exist to help managers capture, understand, communicate, design, analyze and change the business logic of their firm.", Osterwalder (2004:22).

Stähler (2002/2013-08-05) gave one of the earliest summaries of the essential elements of a business model.

BM component	Questions to ask
<b>Value Proposition</b>	What value does the company create for customers and partners?
<b>Product/Services</b>	What does the firm sell?
<b>Architecture</b>	How and through what configuration is value created?
<b>Revenue Model</b>	How does the company earn money?

Image 1. Stähler's model, figure after Osterwalder, (2004:31)

The *value proposition* of ABB Truck Service was to reduce downtime for the customers' machines. The *architecture* was an integrated workflow that in more than 98% of the time gave the customer access to the machine within 36 hours. The price for customers was cost-based. In retrospect it could be question if this *pricing model* captured value the best; alternatives could have been a fixed price for each type of intervention or even a diminishing price after 36 hours had past – even if that might involve heavy extra costs for ABB Truck Service.

Recently Teece (2010) gave the definition, which is today most accepted in the literature: "The essence of a business model is in defining the manner by which the enterprise delivers value to customers, entices customers to pay for value, and converts those payments to profit." "In essence, a business model embodies nothing less than the organizational and financial 'architecture' of a business.", Teece (2010:172, 173).

He presented the following image as a summary of the most important elements of a business mode

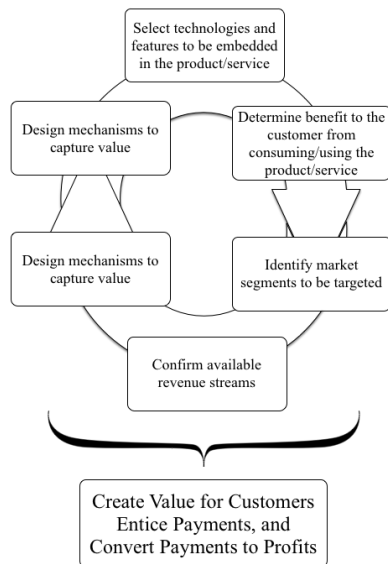


Image 2, Business model, Teece (2010:173).

## BUSINESS MODELS AND STRATEGY

"...a business model is more generic than a business strategy. Coupling strategy analysis with business model analysis is necessary in order to protect whatever competitive advantage results from the design and implementation of new business models.", Teece (2010:180). Strategy is conceived as being thought out in advance, or *planned*. This *ex ante* assumption is valid in some cases, where the business model is a set-up that has been conceived in advance. For instance, Southwest Airlines may have actually been built based on a pre-conceived strategy, Porter (1996). However, the more common situation involves strategy evolving as a result of a learning process, either by *conscious experimenting* (known in literature as 'agility'), or the as a result of *learning from unplanned reactive responses* to competition or customer responses. This situation seems to have occurred with IKEA, where what has been perceived in retrospect as a planned process, was actually more the result of adaptation to customer response, Porter (1996).

The fundamental strategy question is how does one build a sustainable competitive advantage and get a super normal profit. It not enough to develop a successful business model to assure competitive advantage, as imitation is so easy, Teece (2010:173). Porter (1996:62) wrote that a company can outperform rivals only if it can establish a difference that it can preserve. Such a difference can be sustained if it can make many choices embedded in organizational praxis, which necessitate competitors to imitate not only discrete advantages. Hence that competitive advantage grows out of the entire system of activities. Rivals will get little benefit from imitation, unless they successfully match the whole system, Porter (1996:73-74). In the ABB Truck Service case the new competitive advantages were based on a large set of new activities: the online access to blow-ups of design

drawings – online-order of spare parts – overnight delivery of spare parts – direct operator reporting of work done – immediate central invoicing. In order to copy the new achieved advantages, a competitor has to copy all elements, including training of the work force, and effective routines for handling of the system.

The new 'business model' we developed fulfills 'Rosenbloom's criteria', Chesbrough (2010:355):

1. Articulates the value proposition
2. Identifies a market segment and specify the revenue generation mechanism
3. Defines the structure of the value chain required to create and distribute the offering and complementary assets needed to support position in the chain
4. Details the revenue mechanism(s) by which the firm will be paid for the offering
5. Estimates the cost structure and profit potential
6. Describes the position of the firm within the value network linking suppliers and customers
7. Formulates the competitive strategy by which the innovating firm will gain and hold advantage over rivals.

Chesbrough & Rosenbloom (2002:535) mean that strategy and business development is different and that strategy is superimposed on business models:

- The business model starts by creating value for the customer, and constructs the model around delivering that value. There is some attention to capture in a portion of the value created, but the emphasis upon value capture and sustainability much stronger in the realm of strategy.
- A second difference lies in the creation of value for the business, versus creation of value for the shareholder.
- A final difference is in the assumptions made about the state of knowledge held by the firm, its customers and third parties. The business model construct consciously assumes that this knowledge is cognitively limited, unbiased by the earlier success of the firm. Strategy generally requires careful, analytic calculation and choice, which assumes that there is a great deal of reliable information available. It similarly assumes that any cognitive limitations on the part of the firm are of limited importance.

I disagree, in my view the business model, *how the firm intends to create value for a set of customers, is a prerequisite for profits*, which thus are *conditional* of that value-creation – unless profits are a result of a rip-off.

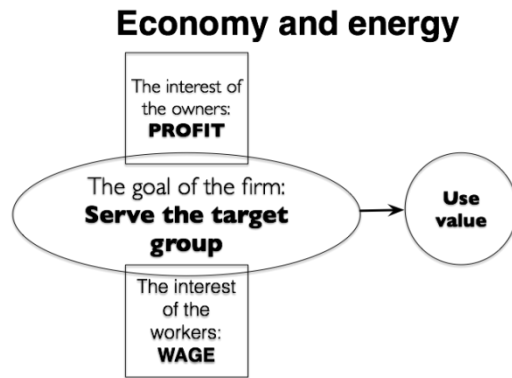


Image 3. *Economy and Energy, own.*

Business models have been studied by among others Bettis & Prahalad (1995); Sawhney (1999); Amit & Zott (2001); Stähler (2002/2013-08-05); Chesbrough & Rosenbloom (2002); Osterwalder (2004); Chesbrough & Schwartz (2007); Andriopoulos & Lewis (2009); Chesbrough (2010); Doz & Kosonen (2010); Mets (2009); Teece (2010), and Yunus et al. (2010). Business models are considered as part of the strategy subfield and the most important journals in which the issue is discussed are the 'Strategic Management Journal' and 'Long Range Planning'.

#### *Other concepts and implications*

The case could be viewed from many other perspectives, not discussed here: the performance effects of workers' empowerment (McEwan & Sackett, 1998; Vidal, 2007; Udo & Ebiefung, 1999; Waldeck & Leffakis, 2007; Waldeck, 2007), strategies for implementing organisational change (Gupta, Chen & Chiang, 1997; Khazanchi, Lewis & Boyer, 2007), service innovation theories, and many others. Each of these issues is studied by specialized researchers, and often have specific journals more or less dedicated to such studies.

## CONCLUSIONS

The presented case shows business modeling is a key to achieving strategic competitive advantage. More case studies will improve the scientific understanding of business modeling at the present stage of development.

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## DOES FINANCE IMPROVE BUSINESS PERFORMANCE IN THE INFORMAL ECONOMY?

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### ABSTRACT

This study investigates the impact of financial capital (microfinance) on the performance of micro-enterprises in the informal economy. The theoretical basis for this study is the Schumpeterian notion that entrepreneurs are able to create value due to their ability to make new resource combinations, of which financial capital is one of the most important and easily convertible resources. To test our hypotheses we apply a cross-sectional unique dataset of microenterprises in the informal sector in Ecuador. We observe how the provision of micro-loans, as a measure of financial capital, allows micro-entrepreneurs to multiply their income generating opportunities and achieve a higher return on equity (ROE). In addition, greater debt financing is positively related to the operating efficiency, measured as return on assets (ROA). Critical to the decision to exploit an entrepreneurial opportunity is also the entrepreneur's financial literacy, and we find that entrepreneurs with a higher financial literacy achieve higher performance than others. However, an important observation is that growth comes at the expense of performance up to a certain size, implicating that diminishing economies of scale negate the positive effects of debt financing in the informal sector. Our results suggests that lending is best suited for firms with an asset size greater than USD 129.000. This has an important policy implication in that growing the size of a small business, through increased debt financing, may not necessarily lead to enhanced overall performance.

**Keywords:** *microentrepreneurs, financial capital, microfinance, informal economy, financial literacy, firm performance*

### INTRODUCTION

Microenterprises are the common economic backbone of most poor and emerging economies. Most of these enterprises operate in the legal "shadow" or the informal economy<sup>1</sup>, representing up to 70% of GDP in some emerging economies versus 13% in higher income OECD countries (Schneider et al. 2010).

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<sup>1</sup> The informal economy is commonly defined as those income generating activities which are "unregulated by the institutions of society, in a legal and social environment in which similar activities are regulated" (Portes et al. 1989, p.12).

While research on the informal economy exists, it has largely been anecdotal with little theoretical underpinning (Webb et al. 2013), and has to a large extent been overlooked by mainstream entrepreneurship research (Bruton et al. 2008). In line with the call for future research on funding of microenterprises (Moss et al. 2014; Bruton et al. 2013), this study specifically assess if and how access to finance enhances entrepreneurial performance of microenterprises in the informal economy.

Microfinance has over the recent years emerged as a significant funding source for microenterprises in poor countries (CGAP 2014), supported by increasingly professionalized microfinance institutions (Randøy et al. 2013). Microfinance has been advocated as a tool to facilitate entrepreneurship and eradicate poverty (Pitt & Khandker 1998;). While the link between access to finance and poverty has been extensively researched (Roodman & Morduch 2013; Khandker 2005), the link between access to finance and entrepreneurship in the informal sector has not. In our review of existing research we thus identify a gap in the literature, which due to microenterprises significant role in developing economies should be of public policy interest, and also help develop entrepreneurship theory (Bruton et al. 2013), both from a financing perspective but also from a growth aspect.

We use Ecuador as the empirical context of this study, which we argue is a representative example when studying entrepreneurship in the informal economy (World Bank 2012). First, there is an extensive informal economy (Canelas 2014; Schneider et al. 2010; Albornoz et al. 2011), and second there are well-developed regulated microfinance institutions specifically targeting the informal economy. Third, due to unique access to inside information from one major microfinance institution, we get access to microenterprises that have been seeking external financing from a microfinance institution. Forth, we also have data that allow us separate financing of business related activities versus financing of consumption. By assessing poor microentrepreneurs and their microenterprises in the informal side of an emerging economy, as called for by Moss et al. (2014), we are adding to the existing literature on the performance of microenterprises in the informal sector (De Mel et al. 2008; Honig 1998).

This article is organized as follows. First follows a review of entrepreneurship literature relating to entrepreneurial performance and access to financial capital in the informal sector. Second a series of hypotheses are developed. Third, the unique research methodology is presented including constructs and measures. Following this we test the hypothesis using an OLS regression technique. Last we discuss and conclude the findings, its limitations and implications for scholars as well as practitioners.

## **THEORY DEVELOPMENT AND HYPOTHESES**

Where traditional banking does not reach out to needy microenterprises, the entrepreneur must bear the full risk of the project and, if possible, do the financing him- or herself (Knight, 1921). Business

owners of microenterprises in the informal economy typically rely to a large degree on internal financing, as external formal bank-based debt or equity financing is not available to these actors. If external financing is available, it often comes at a high cost from moneylenders or other kind of informal providers of capital, so high that it deters from making any investments. Therefore microfinance institution comes in as a third alternative, bridging the formal and the informal economy, typically with much lower interest rates than informal money lenders<sup>1</sup>. In seeking debt to finance an expanding business, the microentrepreneur, or the capitalist part of this individual, is also sharing the risk with external sources (e.g. the microfinance institution). If the entrepreneur is successful, the lending activity results in an improved performance of the business. We argue that little research attention has been made to the nature of the entrepreneurial opportunities in the informal sector, and the type of returns an entrepreneur can achieve.

If the entrepreneur is the specialist in risk-taking or alleviating uncertainty (Knight 1921), seeking an external financier may not only be a sign of lacking financial capital, but rather that the risks involved are too great for the entrepreneur to bear alone. We argue that the adverse self-selection by the entrepreneur, partly based on asymmetric information that the other sources of funding do not possess, makes the entrepreneur better informed about his or her capabilities. In order to deal with such adverse selection by entrepreneurs, the microfinance bank would conduct careful credit screening and apply interest rates and fees in order to compensate for the uncertainty of overly risky and/or unprofitable entrepreneurial investments or activities, and also to deter from these. If these interest rates are set too high, then none of the proposed investments will be undertaken, if set too low, the bank's operations become unsustainable. To an entrepreneur, the cost of financing (cost of capital) is thus something to be weighted against the available opportunities and their economic returns. If a positive spread exists between the cost of borrowing and the investment opportunities, then financial theory says that value can be created through reinvesting and growing the business. The microenterprise should invest up to the point when the marginal benefit from an incremental investment is equal to the marginal cost.

Schumpeter (1934) describes the success of entrepreneurs in terms of an entrepreneurial profit. The empirical entrepreneurship literature uses various measures of performance such as efficiency, growth, profit, size, liquidity, success/failure, market share and leverage, often with a focus on the consequence of good performance. Among these measures, efficiency, growth and profit are the most common (Murphy et al. 1996). Increasingly some are also using a return to capital measure (McKenzie & Woodruff 2008; De Mel et al. 2008), but this is typically unavailable due to insufficient accounting numbers (requiring both income statement and balance sheet numbers).

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<sup>1</sup> The term moneylenders refers to informal providers of credit that are commonly charge 100% per year or more in interest rates and apply harsh collection methods.

Firm performance may be viewed from two perspectives – the entrepreneur-perspective and the firm perspective. From an entrepreneur-perspective, the main interest is the generated income in relation to the capital the entrepreneur has invested, the equity commitment, hence the most appropriate measure is Return on Equity (ROE). Return on Assets (ROA) on the other hand measures the return on all capital invested and is therefore a better proxy of the firm's operating performance or efficiency.

Financial capital provides a medium of exchange and trade, and facilitates investments. This might be taken for granted in developed economies, but getting access to working capital is a major challenge among poor micro-entrepreneurs in the informal economy. The ability to exit the barter economy, where exchanging goods and services is complex and expensive, provide potential large saving to the entrepreneur. Research shows that financial capital as a medium of exchange lowers transaction costs and makes operating a business more efficient (Savings 1971; Jack & Suri 2011).

Financial capital may either be internally generated funds or available through external financing. In this study, the external financing will be seen as provision of debt from microfinance institutions. Financing a firm is dependent on the reinvestment opportunities and the availability of financing – which together make up the nature of the entrepreneurial opportunity (Shane & Venkataraman 2000). The decision to seek and obtain "financing" is essentially a decision to exploit an entrepreneurial opportunity, preceded by the discovery phase.

In capital constrained areas of the world, the lack of financing severely hinders entrepreneurship and firm growth (Ayyagari et al. 2008). Lacking capital is therefore a business risk, which affects the performance of the firm. While the seminal study by Modigliani & Miller (1958) proposes that capital structure (debt / equity ratio) is independent to performance of the firm, the intention by the authors was not to argue that capital structure is irrelevant (Miller 1988). In terms of the impact of financing on the performance of micro enterprises, there are a limited number of studies, especially from a less developed country and the informal economy.

Honig (1998) studied microenterprises in the informal economy in Jamaica, finding among other things the importance of considering heterogeneity among microenterprises, such as separating between those with employees and those with no employees. The study showed that those who received a business loan had a higher income, especially among the self-employed. Copestake et al. (2001) found in the case of Zambia that business performance and household income significantly improved upon taking a second loan, but for those, nearly half of the clients, who did not continue with their second loan fared worse. A qualitative case study by Hietalahti & Linden (2006) on poor women in the northern eastern South Africa revealed that some of the poorest women were able to improve their life modestly with access to microloans, but also highlight that the conditions for successful entrepreneurship differs depending on the degree of poverty.

In a recent quantitative study, Mahmood & Rosli (2013) study on Malaysian microenterprises that microcredit had a significant impact on the performance. A number of studies applying randomized control trials (RCTs) have in addition looked at the impact of business grants, also a form of financing, to microentrepreneurs. McKenzie & Woodruff (2008) found in an RCT on Mexican microenterprises monthly returns to capital of 20-33 percent which corresponded to a return between 3 and 5 times higher than the charged interest rate. The RCT did not adjust the returns for the opportunity cost of pursuing an alternative activity as argued by for instance Shane & Venkataraman (2000), therefore exaggerating the performance. De Mel et al. (2008) found in a study on Sri Lanka a monthly return on capital of 4.6-5.3% (55%-63% annually), also higher than prevailing interest rates, here deducting an opportunity cost of labor.

Because of the grant focus of existing randomized control studies, little attention is paid to how debt (the main instrument used in microfinance) affects firm performance. In addition, the randomized control trials are focused on very tiny businesses. Berge et al. (2011) looked at the effects of a small business grant, USD 60. De Mel et al. (2008) used a business grants of USD 100 to USD 200 to businesses with a maximum asset size of USD 1,000, where the size of these grants in some cases were equal to a value greater than the original capital invested. Small and equal grant based RCTs fail to take into account the different business needs, where a relatively small grant to a larger microenterprise, for instance with assets worth USD 1,000, will have a relatively little impact in comparison to the same size grant to a very small microenterprise with for instance assets worth USD 100. This study looks at the effect of an average total debt financing of between USD 2,628 and USD 41,623, thus capturing the effects of a more business varied financing, given the various nature of the businesses.

If microenterprises are provided with microfinance debt, we expect to see a positive impact on firm performance. Thus, one should expect the return on equity to increase and more earnings generated as these microenterprise are able to increase their disposable assets. In Figure 1, this is illustrated as the debt is used to acquire income-generating assets (the equity multiplier). If the reinvestment opportunities can be done at a rate of return which is higher than the lending rates, then value is created. Lacking capital is thus a constraint which hinders entrepreneurs from optimizing a realizable set of investment opportunities (Evans & Jovanovic 1989), including having access to sufficient working capital. In a setting where there are entrepreneurial opportunities present, financing allows the entrepreneur to exploit these opportunities. Net of interest expense and amortization, the microentrepreneur reaps the reward through an improved ROE, thus:

Hypothesis 1: Financing through microdebt is positively related to entrepreneurial performance (ROE). Lacking access to debt not only prevents micro entrepreneurs from expanding their income generating activities, but it also hinders experimentation in general or using cash as a resource cushion (Cyert &

March 1963; Bourgeois 1981). While debt allows the income generating activities to be expanded, through the availability of financing and debt, the operating efficiency (ROA) can also be improved, if the entrepreneur can select opportunities with higher margins and or asset turnover. The second hypothesis thus reads:

Hypothesis 2: Financing through microdebt is positively related to entrepreneurial operating performance (ROA).

In the discovery of an entrepreneurial opportunity and the subsequent exploitation, the rate of borrowing needs to be compared against the expected financial return from the assets that the borrowing provides, especially when the financing is done with a regulated microfinance institution. This demands a certain level of financial literacy. Honig (1998) found in a Jamaican context different results based on education, suggesting no benefit to performance from high school education, but rather from college education. Thus, we suggest that entrepreneurs that are financially literate should outperform those who are not, such that:

Hypothesis 3: Financial literacy is positively related to entrepreneurial performance (ROE, ROA)

## RESEARCH METHOD

Researching poor microentrepreneurs in emerging/developing economies provide a number of inherent challenges. Obtaining detailed data from the informal economy is for instance difficult as micro-entrepreneurs typically do not maintain financial records and in addition often mix family and business transactions. These challenges also include getting access to respondents, sample selection biases, the respondents weak knowledge of financial terminology; their ability to respond to surveys (with numbered Likert scales to mention one such challenge). Many of these challenges have been overcome with our unique research design.

In order to get access to microenterprise we have collaborated with Banco D-Miro from Ecuador. This microfinance institution is a regulated microfinance institution with 41.000 clients, based in the coastal regions, where a large part of the economy is informal. Banco D-Miro is owned by the Norwegian NGO Mission Alliance, a faith-based Christian organization. The roughly 100 credit officers who work at Banco D-Miro have manually collected financial data, partly through manually filled out application forms, but also including home visits, for the overall assessment of risk and credit worthiness of the clients. Prior to credit approval, the branch manager reviews the credit application. As credit default does not benefit the branch manager or the credit officer, this process vows for a better quality data, than an entirely self-reported measure of entrepreneurial performance. The data is very detailed and allows for fine-grained analysis of both income statements and balance sheet items, even separating family and business income and assets, thus allowing us to focus specifically on the performance of the

micro-enterprise. Data relating to both the balance and the income statement is obtained at the moment the microentrepreneur's sought financing for their opportunities.

In addition to the data collected through the survey and the data collected by the credit officers of D-Miro, Ecuador's microfinance institutions are by law required to report information to a credit bureau, which provide us with more individual credit information than is common in many other emerging informal economies (World Bank 2013). This process provides for complete picture of the microentrepreneurs financial situation, including loans to other financial institutions.

Lastly, to achieve a sufficient and representative sample for the statistical analysis we have used three available client categories of approximately 250 clients each: 1) clients who did not renew the loan, 2) clients with payment problems and 3) clients with no payment problems. All in all 755 microfinance clients are included. The respondents were then split into two groups, of which 480 had debt and 275 did not at the time of the loan application.

As a measure of the dependent variable, we are using the ROE and ROA in line with the discussion above. To avoid that outliers drive the results, the yearly ROE and ROA have been winsorized at the 5% level, such that for ROE, firms with an Equity of less than \$2,500, had the equity set to \$2,500, and for ROA, firms with a total assets less than \$3,200 dollar, used an asset value of \$3,200 (a similar approach to Hvide & Møen 2010). While the median ROE and ROA remained the same, at 73% and 63% respectively, the variance dropped by 94 and 96% to 73% for ROE and 28% for ROA.

In addition, since the microentrepreneur does not pay a formal salary to him/herself, we have added a proxy number for the opportunity cost of labour into the reported income, in line with suggestions from past research (Shane & Venkataraman 2000). While the minimum wage is intended to set a wage floor, the actual floor may be much lower in the informal sector if formal jobs or alternatives are not available. Canelas (2014) find, using data from the National Statistics and Census Institute of Ecuador, that informal wage workers earn on average 91% of the minimum wage during 2010-2012. We therefore assume that the opportunity cost of labour for the informal sector in Ecuador in 2013 to be the actual minimum wage of USD 318 multiplied by 91%, i.e. USD 289. As a result the median ROE was reduced from 63% to 44% and the median ROA from 63% to 37%.

Financial capital can be equity or debt. In the microfinance industry, the initial and most widely form of capital provided is microdebt. In this study we will look at two groups of micro-entrepreneurs; one group with debt (480 firms) and the other group with no debt (275 firms) at the time of seeking a new loan with Banco D-Miro.

Building upon a previously tested concept (Lusardi & Mitchell 2011a) we have used three questions to test entrepreneurs understanding of the financial concepts, compounded interest, inflation and

risk/diversification. The first two questions are directly from Lusardi & Mitchell (2011) whereas the third question was adapted to better fit this context. Three questions were asked:

Suppose you had \$100 in a savings account and the interest rate was 2% per year. After 5 years, how much do you think you would have in the account if you left the money to grow: more than \$102, exactly \$102, less than \$102?

Imagine that the interest rate on your savings account was 1% per year and inflation was 2% per year. After 1 year, would you be able to buy more than, exactly the same as, or less than today with the money in this account?

Do you think that the following statement is true or false? Investing everything in one opportunity usually provides a more certain economic reward than investing smaller amounts in many different opportunities.

We control for the entrepreneur's gender as many microfinance programs typically favour women over men. In addition we control for age, education, and size. We use total assets, here Winsorized at the 5% level, for size and also include a transformed size-square measure to capture some of the unique characteristics of size. In addition, we control for industry using the definitions proposed by the United Nations for the informal sector (United Nations 2008, p. 279-281). Often, the informal sector is numerically dominated by manufacturing, repair services and trade. In the context of the informal sector of Ecuador, the sample is dominated by wholesale and retail trade (53%), of which the most common forms are clothing establishments, food and grocery retail, bazaar and cosmetics followed by a number of smaller commercial businesses of varying kind. Following wholesale and retail trade was manufacturing (18%), restaurants (8%), agriculture, forestry and fishing (6%), transportation (5%), other personal service activities (4%), education; human health and social work activities (2%), construction (2%), repair services (2%) etc. Furthermore, the urban vs rural characteristics may also explain differences in performance (Honig 1998), wherefore this is also controlled for using the ratio of urban to rural persons living within the city area to which each microentrepreneur belongs using data from the National Statistics and Census Institute of Ecuador (INEC 2011).

## ANALYSIS AND RESULTS

As seen in Table 1, the average annual revenue of the microenterprises is USD 26,688. These statistics are generally not available in previous research (Honig 1998; Copestake et al. 2001), which most often leaves us with the definition of a microenterprise as a business with less than 10 employees. Most firms in the data set have below 10 employees, with a limited number having reportedly up to 15 employees.



	No debt sample (N=275)			Debt sample (N=480)			Full sample (N=755)	
	Mean	Min	Max	Mean	Min	Max	Mean	Std. Deviation
Net sales (USD)	20,285	0	98,400	30,356	0	220,800	26,688	22,305
Net income (USD)	7,477	-1,920	34,440	11,169	0	51,600	9,825	6,056
ROE (%)	83%	-21%	288%	110%	0%	852%	101%	86%
ROA (%)	80%	-21%	286%	78%	0%	298%	79%	53%
Adj. ROE (%)	40%	-112%	193%	70%	-141%	726%	59%	67%
Adj. ROA (%)	39%	-110%	193%	48%	-110%	226%	45%	38%
Asset Turnover	3.1	0.3	182.6	2.2	0.0	19.2	2.5	6.9
Profit Margin (%)	24%	-20%	96%	31%	4%	100%	29%	14%
Debt/equity (%)	0%	0%	0%	39%	0%	833%	25%	58%
Age (years)	42	19	67	43	19	68	42	11
Employees (nr)	1	0	15	2	0	15	2	2
Urban (%)	90%	17%	100%	87%	20%	100%	88%	17%

Table 1. *Descriptive statistics*

In terms of background variables, our sample include 12% rural microentrepreneurs and finds that 35% have completed primary school, 59% had finished or had some sort of secondary school degree, with only 4% attaining a higher degree beyond secondary education. In a similar study, Magill & Meyer (2005) found that for urban Ecuadorian enterprises, 46% had finished primary school, 41% had some or had completed a secondary education with 12% having an education beyond the secondary education. They note that these levels are higher than for the general population.

In line with Honig (1998), we have segmented the regression results based on being a business without employees or with employees. In addition, due to the informality, the notion of employment is vague, wherefore we also select those who say that at least two individuals, apart from themselves, work in their business. The regression in Table 4 indicates that when controlling for gender, age, urban vs rural, education and industry, there is a significant positive association between debt-funded microentrepreneurs and higher ROE for all cases and subgroups. This supports our first hypothesis that an increased level of debt is positively related to firm performance. Hypothesis two is also supported in that debt financing has a positive impact on the operating performance of the firm, ROA. In terms of financial literacy, we find support that individuals with higher financial literacy also perform better. However, a deeper look at the analysis reveals that this only holds true among the microenterprises with no employees, suggesting that practitioners need to specifically teach financial literacy to these clients, prior to engaging in financing.

Among the control variables, the general level of education of the micro entrepreneur is not shown to have any impact on performance of the microenterprises they own. However, male entrepreneurs with no employees have a higher ROA than female. In addition, rural based microenterprises with no employees have higher performance. Among the industry controls, none of the industries had a significant impact on performance (ROE and ROA).

Size is negatively related to performance, however not all the time. In other words, adding another fridge or scaling the businesses in this local business environment comes at a cost since demand is fairly constant. By squaring the size factor we find that the size factor actually improves performance above a certain threshold (see figure 1). Up to a certain size, taking on debt is negative to the performance of the firm. This finding is supported by industry research from US Aid who found in their review of the informal sector in Ecuador that most microentrepreneurs were not convinced debt represented an opportunity to grow (Magill & Meyer 2005): "Credit is not seen as a positive tool to grow a business, but rather as a cost or penalty to be avoided at almost any cost" (p. 118), and recommend MFIs to exercise caution when "focusing on credit as a solution to the problems facing microentrepreneurs".

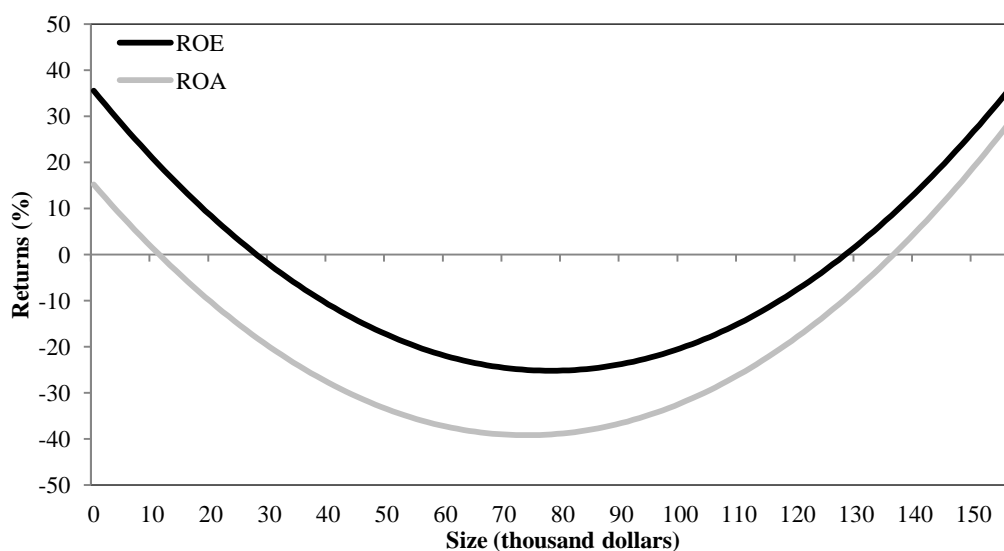


Figure 1. Trade-off between size and return

Variables	ROE	ROA	ROE	ROA	ROE	ROA	ROE	ROA
	All cases		Without employees		With employees		More than one employee	
Debt dummy	.256***	.192***	.249**	.232**	.253***	.164***	.217**	.127*
	(7.004)	(5.369)	(3.018)	(3.018)	(6.101)	(3.998)	(3.483)	(2.092)
Financial								
Literacy	.084*	.089*	.108	.055	.063	.095*	.024	.073

	(2.389)	(2.597)	(1.360)	(1.360)	(1.575)	(2.397)	(.412)	(1.254)
Education	.031	.007	-.038	-.064	.042	.019	.035	.044
	(.846)	(.207)	-(.466)	-(.466)	(1.036)	(.465)	(.572)	(.733)
Age	-.062	-.078*	-.045	-.068	-.066	-.063	-.019	-.010
	-(1.690)	-(2.172)	-(.498)	-(.498)	-(1.603)	-(1.539)	-(.323)	-(.164)
Gender	.055	.092*	.017	.038	.055	.101*	.073	.090
	(1.468)	(2.534)	(.190)	(.190)	(1.330)	(2.431)	(1.193)	(1.515)
Urban vs Rural	-.108**	-.099**	-.046	-.124	-.134**	-.091*	-.082	-.090
	-(3.039)	-(2.859)	-(.567)	-(.567)	-(3.325)	-(2.281)	-(1.369)	-(1.546)
Size	-.344***	-.572***	-.214	-.579**	-.416***	-.620***	-.365*	-.570***
	-(4.133)	-(7.014)	-(1.026)	-(1.026)	-(4.429)	-(6.653)	-(2.514)	-(4.017)
Size <sup>2</sup>	.223**	.405***	.122	.431*	.282**	.438***	.244	.406**
	(2.772)	(5.144)	(.626)	(.626)	(3.080)	(4.828)	(1.743)	(2.961)
N	734	734	171	171	568	568	285	285
r <sup>2</sup>	.120	.155	.110	.190	.144	.158	.110	.150
Adjusted r <sup>2</sup>	.100	.136	.018	.106	.119	.134	.057	.099

Notes. The estimation method is ordinary least squares. Betas are standardized to allow comparison of impact. Industry dummies are included but not reported. T-values are within parentheses.

\* Significant at the 10% level; \*\* significant at the 5% level; \*\*\* significant at the 1% level

Table 2. *Regression analysis*

However, after a certain size, financing starts to add value. In figure 1 below, it is shown that taking on debt worsens the performance for firms below USD 137.000 for ROA and USD 129.000 for ROE, in other words at the higher end of the sample used in this analysis. If the entrepreneur has employees, this lowers the break-even point somewhat. This has important policy implications. It illustrates how MFIs could analyze their existing clientele to find the cut-off point where financing does and does not add value. This allows MFIs to refocus their attention on the larger microenterprises where economic development and value creation is taking place, and avoid the smaller firms where financing actually depresses the performance on average.

In addition to separating between firms with no employees and firms with employees, the nature or industry may also show different effects (see Table 2), depending on the local conditions. The two largest industries represented in the sample are wholesale (and retail) trade and manufacturing, representing 71% of the sample. The regression analysis yields similar results for debt as an impact on the returns on the return for the wholesale trade sector, but is not yielding as strong signals for the manufacturing sector. We also see a different representation and impact of gender in wholesale trade.

Variables	ROE	ROA	ROE	ROA
	Wholesale trade		Manufacturing	
Debt dummy	.292*** (5.993)	.236*** (4.943)	.194* (2.306)	.080 (.940)
Financial Literacy	.040 (.833)	.072 (1.539)	.081 (1.013)	.069 (.851)
Education	.016 (.340)	-.029 (-.613)	.089 (1.098)	.135 (1.648)
Age	-.092 (-1.848)	-.122* (-2.493)	-.142 (-1.702)	-.130 (-1.537)
Gender	.098* (2.045)	.153** (3.282)	-.131 (-1.574)	-.135 (-1.598)
Urban vs Rural	-.110* (-2.283)	-.077 (-1.632)	-.278** (-3.443)	-.243** (-2.972)
Size (log)	-.386** (-3.444)	-.613*** (-5.585)	-.294 (-1.441)	-.498* (-2.409)
Size squared	.238* (2.180)	.409*** (3.827)	.230 (1.162)	.386 (1.920)
N	397	397	138	138
r <sup>2</sup>	.146	.181	.205	.183
Adjusted r <sup>2</sup>	.128	.164	.156	.132

Notes. The estimation method is ordinary least squares. Betas are standardized. T-values are within parentheses.

\* Significant at the 10% level; \*\* significant at the 5% level; \*\*\* significant at the 1% level

Table 3. *Whole sale trade and Manufacturing industries*

## DISCUSSION AND CONCLUSION

This study finds that that microfinance as a tool to assist microenterprises in their growth, does not necessarily allow for value creation in the informal economy. Specifically, the study finds that while debt in itself improves performance, the increased size of the firm negates the positive effects on performance from debt financing. We operationalize entrepreneurial performance as the microenterprises' Return on Equity (ROE) and its overall Return on Assets (ROA). We observe that the Ecuadorian microenterprises in our sample on average show very high average financial returns (adjusted ROA of 45% and ROE of 59%), which assuming no impact on returns from growth would lead us to assume growth is value creating. However, in the highly competitive environment of the informal economy in emerging economies, the incremental growth results in a drop in returns which

negates the value creation from growth. We call this the debt-growth trade-off. This has previously been identified as anecdotal evidence by practitioners (Magill & Meyer 2005), cautioning donor organizations to push finance as a means to support economic development, which is here given robust empirical support.

Financial competencies are generally seen as an important prerequisite for successful financial planning (Lusardi 2012), and we see the same pattern among microenterprises in Ecuador. Specifically, we find that microenterprises' that are owned and managed by more financial literate micro-entrepreneurs display significantly higher financial performance, both in term of ROA and ROE. This suggests that financial literacy plays a role in the discovery and the decision to exploit an entrepreneurial opportunity in relation to a situation where external debt financing is required.

Specifically, this study makes three contributions to the microfinance and entrepreneurship, microfinance and growth literatures. First, it extends capital structure theory to micro-enterprises in emerging economies, and shown how financial return numbers can be successfully estimated even when being in the informal economy. Second, it adds to the literature on entrepreneurship, microfinance and growth literature by highlighting how debt impacts micro-enterprises' financial return, specifically in relation to the size of the business, where smaller businesses see diminishing economies of scale, whereas the economies of scale occur mostly among the larger microenterprises. This has been recently called for by Bruton et al. (2011). Third, we contribute to the social entrepreneurship literature by establishing a connection between the social mission of a microfinance institution and its (potential) ability to reduce poverty is misdirected when specifically targeting the poorest and smallest businesses.

The study is not without limitation. We are limited by the fact that we attempt to infer causality (the impact of debt on performance) using a cross-sectional dataset. We have tried to reduce this problem by selecting micro-enterprises with and without debt prior to being include in the sample (and by that have an element of longitudinal design), and by trying to control for other potentially confounding variables such as gender, age of entrepreneur, industry etc. In future research, we suggest that the issue is pursued with longitudinal data. Another limitation is that there might be institutional and cultural variables that make generalizing beyond Ecuador difficult. This study is limited to micro-enterprises that have pursued on particular microfinance institution. For example, the fact that D-Micro is pursuing social goals, even though this is the norm in the industry, might impact the self-selection of microentrepreneurs that pursue this particular microfinance institution.

In terms of policy recommendations for practitioners, this study highlights that microfinance institutions and other donor organizations need to assert caution when extending credits to microentrepreneurs in the informal sector. The results highlight that larger microenterprises may

benefit more, and thus be a more suitable target when trying to create economic development. Our data also shows that financial literacy is important in the entrepreneurial process, particularly firms with a few several employees.

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## REGION OF ORIGIN AND PRODUCT KNOWLEDGE. A CROSS-NATIONAL ANALYSIS OF THE PURCHASING DECISIONS OF CHIANTI CLASSICO WINE

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### ABSTRACT

The paper explores the *country of origin* (COO) effect in the wine sector with particular emphasis on the *region of origin* (ROO) as a factor when evaluating alternatives in the purchasing decision-making process. The ROO identifies key information about the product. It is now generally recognized that the *terroir* is a crucial attribute for the quality of a wine. We have focused on case study of the appellation of Chianti Classico on the German, British, USA and Canadian markets. The choice is motivated by the long history and international reputation of the Chianti Classico. Specifically, the paper aims to answer the following main research questions: what is the importance of the country of origin/region of origin assigned by consumers in an evaluation of Italian wines and the evaluation of Chianti Classico? Is there a relationship between the region of origin and knowledge of wine in the choice processes of the buyers? The image of the Chianti Classico influences the willingness to pay a premium in the analyzed markets included in the current study? Is there a difference in product perception and buying behavior among consumers of "Old" and "New World"? The analysis was conducted on a total sample of 2.380 consumers. The results confirm the importance of the COO and especially the ROO in the process of purchase of wine products. Specifically, it reveals that COO and ROO influence on the purchasing process in different ways, and that knowledge and a familiarity with a brand might have a moderating effect on purchase decisions. It was also found that in cases where consumers were not familiar with the product choices the ROO effect might be positive factor leading to acceptance of higher prices for wines originating in well recognized regions.

**Keywords:** *Region of Origin, Country of Origin Effect, Knowledge, Wine*

### RELEVANT LITERATURE AND THEORETICAL BACKGROUND

During recent years the importance of the "made in" information as a cue in product evaluation has grown considerably (Bloemer *et al.*, 2009) and many scholars have focused their research on the



Country of Origin (COO) (Ashil and Sinha, 2004; Pucci *et al.*, 2012) that is the country where the product is manufactured (Bilkey and Ness, 1982). The COO is a not-physical attribute of the product (*extrinsic cues*) on which consumers can base their purchasing decisions (Cattin *et al.*, 1982; Kakamura and Agarwal, 1999), especially in situations in which *intrinsic cues* (e.g. design, taste, performance, etc.) lack or is not possible to evaluate them. The relevance of the origin depends on the cognitive relations that a consumer establishes between the place of origin of the product and the perceived quality of the attributes of the same (Verlegh and Steenkamp, 1999). This is particularly true for agricultural products (Thode and Maskulka, 1998), where the Region of Origin (ROO) identifies basic information about the product (Ittersum *et al.*, 2003; Keown and Casey, 1995). The ROO is in fact an area with specific characteristics (e.g., tradition, culture, environment, etc.) identifiable from other areas of the Country. The ROO plays a decisive role in particular in the purchasing process of wine's consumers and it is now generally accepted in the literature that the *terroir* is an attribute inextricably linked to the quality of the wine itself (Keown and Casey, 1995; Heslop *et al.*, 2010; Remaud and Lockshin, 2009). The specific characteristics of the wine make it impossible to assess the quality before having consumed the product. Among the extrinsic cues the ROO is therefore one of the fundamental attributes of the wine product on which consumers can base the selection process (Schamel and Anderson, 2003; Perrouy *et al.*, 2006). The importance of ROO is also recognized, in agri-food sector, by the existence of *geographic indications* (GIs) as protected geographical trademark (Čačić *et al.*, 2011). Heslop *et al.*, 2010 suggest that the ROO does not simply describe the origin of the product (extrinsic cue) but it also encompasses intrinsic attributes (e.g. the soil) which contribute to quality and taste of wine product. The ROO is therefore a complex attribute and its effect can be influenced by the knowledge that the consumer has about the product's origin. On the one hand, the literature has shown that the effect of COO in the buying process is negatively associated with the level of product knowledge (Rao and Monroe, 1988; Maheswaran, 1994; Veale *et al.*, 2006). In the case of ROO some researchers suggested that the use of ROO as a promotional instrument increases with the level of expertise of the consumer with respect to the evaluated wine category (Rasmussen and Lockshin, 1999; Guidry *et al.*, 2009; Atkin and Johnson, 2010). Some authors have also suggested that this direct and positive relationship between knowledge and the effects of ROO may not be generalizable to regions whose popularity has spread independently of the region itself (e.g. Chianti, Brunello di Montalcino, Bordeaux, etc.). The research of Losi *et al.*, 2012, suggests for example that in the case of internationally known wine regions, the ROO effect on wine purchasing process is strong not only for experienced consumers but also for those with little knowledge of wine choices.

The present work focuses on evaluating effects of COO in the wine sector with particular emphasis on the ROO as an attribute used by consumers when evaluating choices during. The case study that we develop is the appellation Chianti Classico in the American, German, Canadian and English markets.

The choice is driven to a large extent by the long history and international reputation of Chianti (Keown and Casey, 1995; Famularo *et al.*, 2010). The Chianti Classico appellation, in particular, is the most ancient area in the Chianti Region with a production of approximately 3% of the entire Italian wine production (Malorgio and Grazia, 2007). Secondly the appellation Chianti Classico historically has been oriented toward the generation of sales in export markets. According to the statistical reports of the Chianti Classico Wine Consortium (Consorzio Chianti Classico, 2010) in fact, the four countries under investigation represent the first four in terms of volume of exports.

In particular, we aim to answer the following four main research questions:

1. What is the relative importance of the country of origin/region of origin that might be assigned by consumers when evaluating Italian wines and Chianti Classico ?
2. Does there exist a discernible relationship between the region of origin and knowledge of wine in the decision-making process of the consumer?
3. Does the image of the Chianti Classico brand influences the willingness to pay a premium in the evaluated markets?
4. Do product perceptions and buying behavior differ among consumers of "Old" vs. "New World"?

## EMPIRICAL SETTING AND METHODOLOGY

The case study that we explore is that of the Chianti Classico wine. The territory of Chianti Classico was first officially identified in 1716 on legal notice by the Grand Duke of Tuscany Leopold III. At that point the production area (about 70.000 hectares) was delimited according to Italian ministerial decree in 1932 (Malorgio and Grazia, 2007). The recent legislation (ratified in 1996) establishes that the composition of the Chianti Classico wine has to be of minimum 80% Sangiovese grape and for a minimum of 20% of other red grapes varieties as for example Merlot or Cabernet Sauvignon ([www.chianticlassico.com](http://www.chianticlassico.com)).

The research was based on a questionnaire composed of twelve closed questions (five of them using a Likert scale 1-5). The questionnaire concluded with five questions for demographic related questions including gender, age, income, employment and the level of education of respondents. The questionnaire was translated and corrected by a native speaker for each of the four countries included in the study and then retranslated into Italian to reflect any deviations from the understanding of the contained terms. The population of interest represents adults wine consumers. The sample consists of

2,380 consumers. The characteristics and the geographical distribution of the sample are shown in Table 1.

Variables	UK	USA	CANADA	GERMANY
N (n. of respondents)	714	629	494	543
How often do you drink wine?*	3,63	3,65	4,22	3,78
How would you assess your personal knowledge of wine?*	2,84	2,76	3,25	2,60
Annual income **: low	2,66%	29,12%	0,40%	9,52%
medium-low	11,07%	27,52%	1,03%	32,43%
medium-high	21,71%	18,08%	14,55%	38,55%
high	3,64%	21,28%	62,71%	18,59%
I would prefer not to say	60,92%	4,00%	21,31%	0,91%
Education Level **: High School	32,95%	25,82%	8,78%	41,07%
Bachelor Degree	45,27%	56,33%	50,41%	58,16%
Masters or Doctorate Degree	21,78%	17,85%	40,81%	0,77%
Professional Affiliation **: Private sector	23,91%	35,35%	43,59%	53,79%
Self-employed	27,03%	11,15%	30,14%	21,78%
Public Sector	23,59%	17,52%	15,07%	9,66%
Student	22,03%	3,98%	0,20%	5,11%
Other	3,44%	32,00%	11,00%	9,66%
Gender **: Male	54,90%	29,55%	60,90%	48,07%
Female	45,10%	70,45%	39,10%	51,93%
Age (years) **: 18-24	2,10%	7,52%	0,62%	2,95%
25-29	42,72%	17,92%	12,50%	13,08%
30-49	21,43%	48,64%	40,98%	40,52%
50-64	25,91%	20,96%	35,86%	32,22%
Over 65	7,84%	4,96%	10,04%	11,23%

Note: \* likert scale 1-5; \*\* Dichotomous variables

Table 1: Characteristics of the sample

Although the composition of the sample by area appears heterogeneous in terms of socio-demographic variables (age, education level, etc.), the sample size was appropriate considering our focus on cognitive processes *vs* the generalization of overall results (cf. Aiello *et al.*, 2009).

## RESULTS

To analyze the main research objective, a question which contained the relevance of different extrinsic and intrinsic cues was asked. Interviewees were initially asked to rate each attribute on a five-point answer scale ranging from “not at all important” to “extremely important”. The chosen cues were selected by different prior researches (Perrouy *et al.*, 2006; McCutcheon *et al.*, 2009; Atkin and

Johnson, 2010; Spielmann and Babin, 2011). Five attributes were chosen: Brand name, COO/Appellation of Origin, Alcohol content, Grape variety and price.

Figure 1 compares the five attributes with reference to the wine in general with those specifically referring to the Chianti Classico wine. Values included in the continuous circles did not suggest a statistically significant difference at level  $t < 99\%$ . Values included in the dashed lines did not suggest a statistically significant difference at level  $t < 95\%$ .

With regard to the first research question, analysis indicates that the COO represents a critical attribute when purchasing wine, in particular for Canada (4.08) and Germany (3.83). It is also important, albeit less, for the U.S. (3.50) and the UK (3.05). In the purchasing of Chianti Classico wine the ROO is important for the American consumer (3.91) as well as for German (3.83) and Canadian consumers (3.64). Less important is for the UK market (2.86).

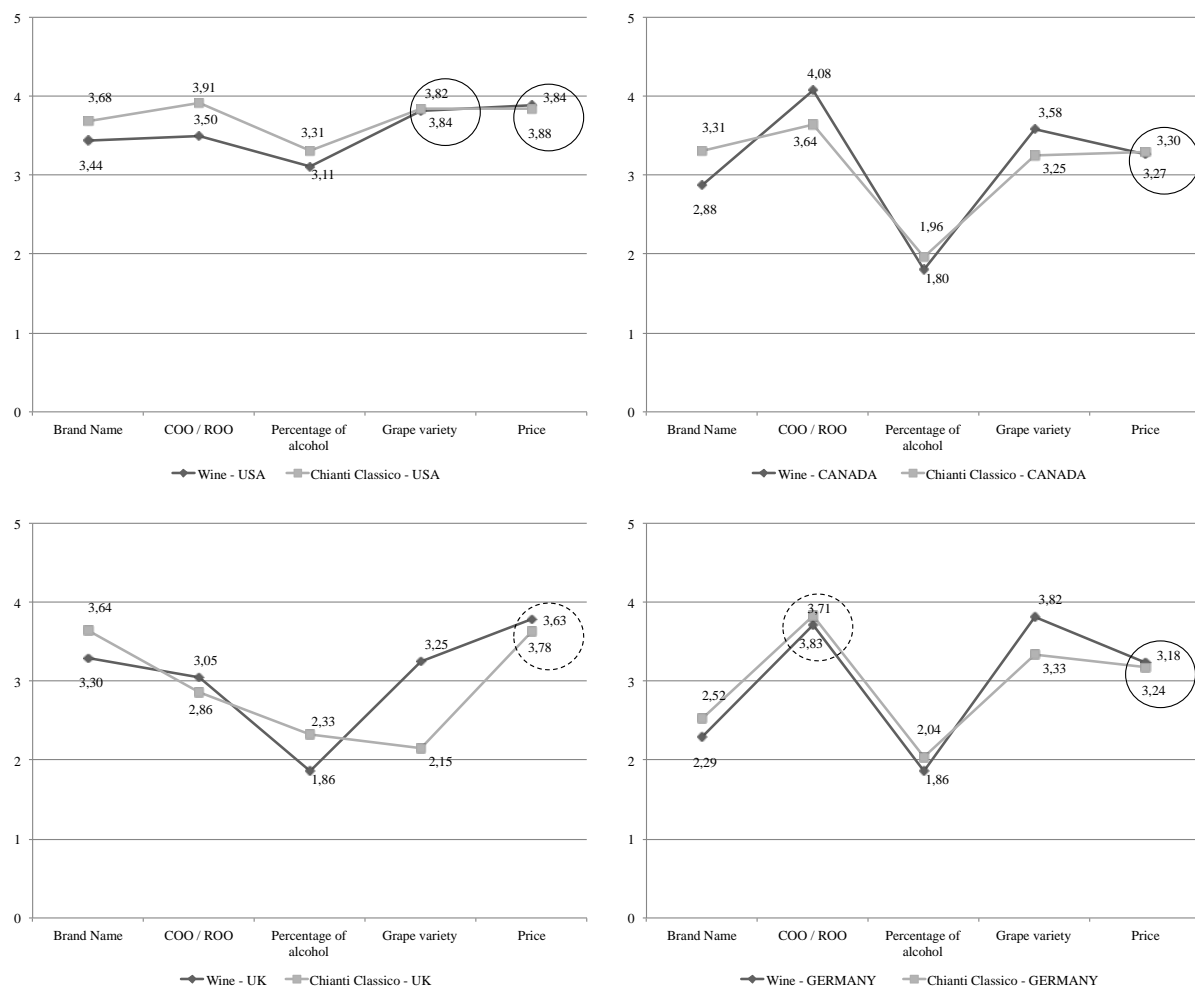


Figure 1: Comparison between relevant attributes in wine purchasing process and those in "Chianti Classico" wine

It also points out that for all four analyzed markets in the case Chianti Classico wine, the brand is more important than it is for the purchasing of wine in general, highlighting the Chianti Classico brand awareness compared to other wines. As for the attribute price, there are no significant differences with regard to the purchase of wine and buy wine Chianti Classico in any of the four markets although the variable appears more decisive with regard to the U.S. and UK. Finally, as regards the percentage of alcohol in the U.S. alone this variable is important.

To answer to the second and third research questions respondents were asked to rate (on a Likert scale) how strongly they associate each attribute with Italian wine and with Chianti Classico wine, from 1 as the lowest level of association to 5 as the highest level of association. In the first case, we attempt to assess the “country-related product image” (CRPI), namely the image of a specific product from a country (Bursi *et al.*, 2012). In the second case, we evaluate the “region-related product image” (RRPI), namely the image of a specific product from a Region. All the attributes were selected by a previous research study Conducted by Zamparini *et al.*, 2010, except from “trendy”, that in Zamparini’s study was called *innovative*. The same scale was used in Losi *et al.*, 2012. Figure 1 compares CRPI and RRPI for each analyzed market. Values included in the circles do not have statistically significant difference at level  $t < 99\%$ .

First, it is evident that consumers of USA, Canada and UK associate to Chianti Classico wine each of the attributes proposed lower values compared to the same Italian wine (in all three cases, the gray line is in fact always below the darker line used for the CRPI). The image of Chianti Classico therefore seems to have a more significant value compared to Italian wines in general only for the German market.

Tradition/culture and high quality are the attribute with the highest associations with regard CRPI and RRPI for the U.S., Canada and Germany. UK also gives higher values to tradition / culture but acknowledges the major Italian wine elegance. The UK consumers are also those that differentiate more the image of the Chianti Classico wine from that of Italian wine in general.

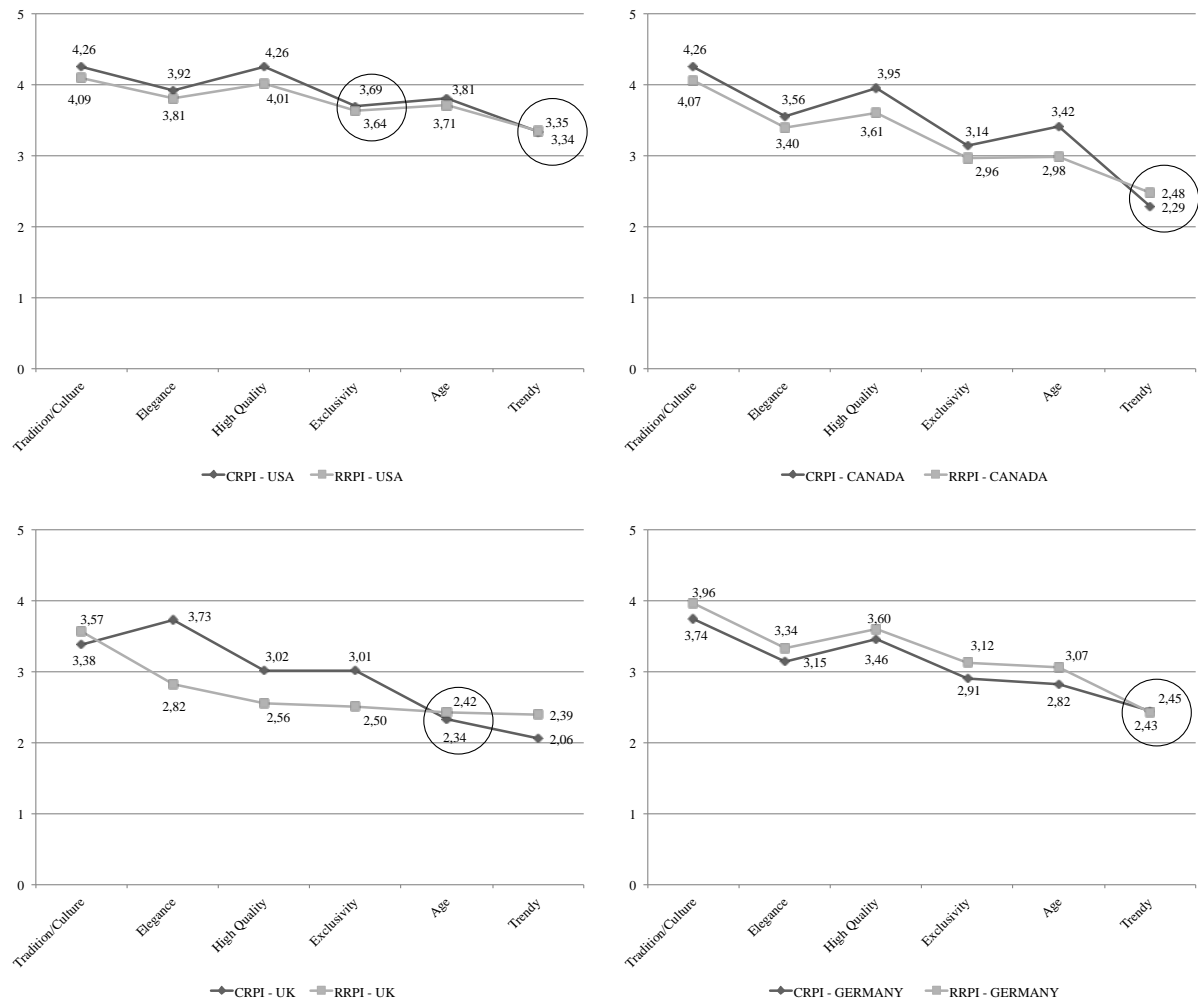


Figure 2: Country-Related Product Image (CRPI) and Region-Related Product Image (RRPI)

USA consumers are those who attribute higher values to all the attributes both in the case of the Chianti Classico wine that in the case of Italian wine in general, and are also those for which the difference between the two perceptions (CRPI and RRPI) is the smallest.

Respondents were asked to assess the level of their wine knowledge (the last question in figure 3) and the level of the Italian wine knowledge. With reference to the Italian wine knowledge, this is rated according to the familiarity of respondents with Italian wine, to their ability to distinguish among different Italian wine regions and to their propensity to search on web some informations about Italian wines.

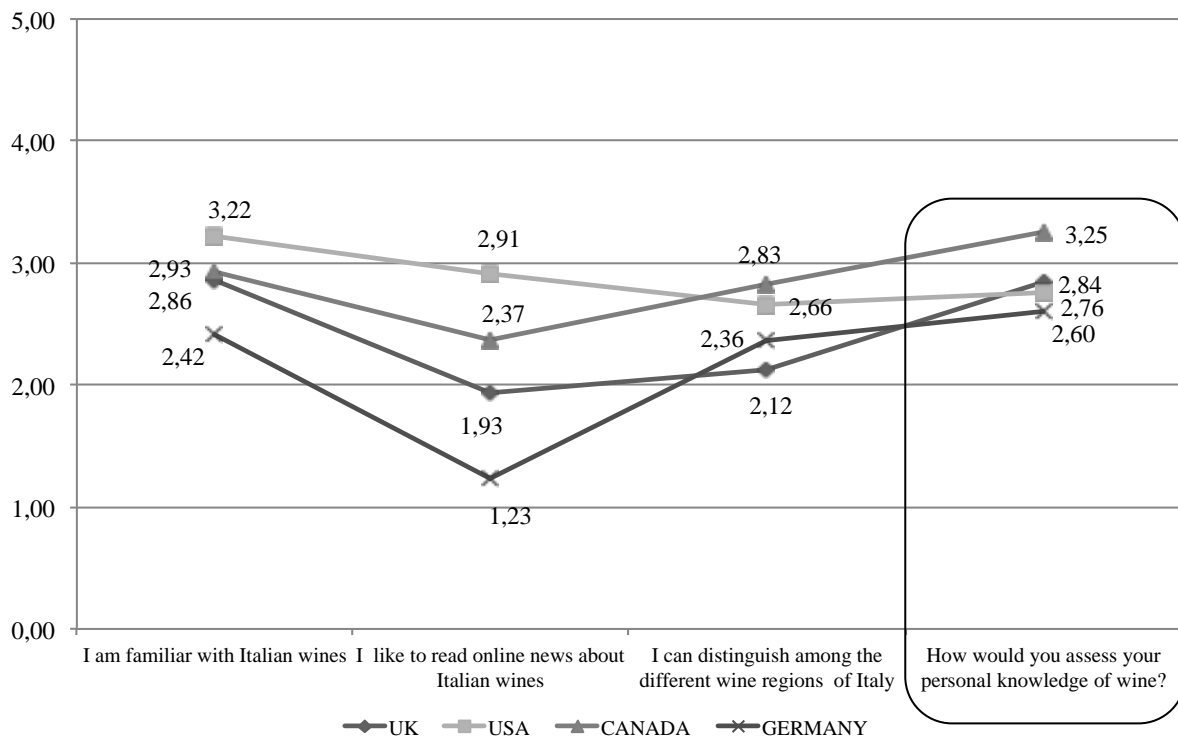


Figure 3: Wine and Italian wine knowledge

Canadian and British are the two groups of consumers with the highest knowledge of the wine products, 3.25 and 2.84 respectively. USA consumers exhibited the highest level of familiarity with Italian wines (3.22), while the Canadians were more able to differentiate among the different Italian wine regions (2.83). In order to gain Table 2 provides consumption information specific to Chianti Classico and shows the percentage of customers within each country that consumed at least once a Chianti Classico wine and visited at least once in the Region.

		UK	USA	CANADA	GERMANY
Have you ever consumed a Chianti Classico wine?	Yes	62,89%	58,05%	92,82%	85,45%
	No	37,11%	41,95%	7,18%	14,55%
Have you ever visited the Chianti Classico region?	Yes	33,61%	9,76%	43,03%	45,49%
	No	66,39%	90,24%	56,97%	54,51%

Table 2: Consumption experience and visit of the Region

Approximately 93% of Canadian respondents consumed at least once, a bottle of Chianti Classico wine and in 43,03% of cases they actually visited the region of production. The Germans have a high level of consumption experience (85,45%). Within the German sample also included were consumers who visited region of Chianti Classico the most (45,49%). Only in 9.76% of cases, however, American respondents also visited the region.

Finally, Table 3 shows the willingness to pay more for an Italian wine and for a Chianti Classico wine.

		UK	USA	CANADA	GERMANY
Are you willing to pay more for Italian wine?	Yes	63,44%	68,10%	61,07%	37,97%
	No	36,56%	31,90%	38,93%	62,03%
Are you willing to pay more for the purchase of a Chianti Classico wine?	Yes	56,58%	50,65%	54,88%	45,67%
	No	43,42%	49,35%	45,12%	54,33%

*Table 3: Willingness to pay more for an Italian wine and for a Chianti Classico wine*

British consumers, Americans and Canadians in more than 60% of cases are willing to pay more for an Italian wine and in more than 50% of the cases would be willing to pay more for a Chianti Classico wine. Only in 38% of cases, however, German consumers recognized a greater value to Italian wine but in only 46% of cases they were willing to pay more for a bottle of Chianti Classico wine.

## DISCUSSION, CONCLUSION AND FURTHER RESEARCH

This empirical analysis carried out confirms the importance of the COO and especially the ROO consideration when examining wine purchase decisions. The role of information on the country/region of origin can have a dual impact on the consumer's evaluation process (Han, 1989): first the so-called “*halo effect*” namely the fact that the COO can serve as a qualitative signal in all those situations in which the consumer is not familiar with the product or the brand; secondly, the “*summary effect*” i.e. the abstraction process that takes place when an image of a country is grounded in previous experiences and perceptions of the attributes that characterize products from that country. In sum, the evaluation of the product quality or brands originating in a specific territory is based on the two effects cited (Yasin *et al.*, 2007; Jaffe and Nebenzahl, 2001).

Despite the importance of COO and ROO in the process of wine purchasing by the consumers of the four countries analyzed, the comparison of Tables 1, 2 and 3 and Figures 1, 2 and 3 indicates a large heterogeneity in the perceptions of the attributes of the Italian wines in general and Chianti Classico wine in particular. This shows how the effect of Country of Origin and Region of Origin depend strongly on the cultural context within which the two phenomena are analyzed.

The USA customers have a low knowledge of wine and use the COO information as an important element during the product evaluation process. The same consumers have a higher knowledge of Italian wine and assign importance to ROO when making choices. Ultimately, Americans were found to be willing to pay more for an Italian wines in general rather than specifically for a Chianti Classico. The British have little knowledge of wine in general is that of Italian wine. COO and ROO have less effect on the purchasing process respect for U.S. consumers; however, are willing to pay more for an Italian wine or a Chianti Classico in particular. Canadians have high level of wine knowledge and a



high knowledge of Italian wines. COO and ROO are important in their buying process and they are willing to pay more for either Italian wines or a Chianti Classico. Even though an high percentage of Germans (85,45%) consumed a Chianti Classico wine, they were found to possess little knowledge of Italian wines and of wines in general. They use ROO and COO as considerations in the decision-making process but are willing to pay more for the Chianti Classico wine.

The results thus confirm that COO and ROO effects play a role the buying process in different ways, and also that knowledge and familiarity with the product might have a moderating effect on choice behavior. Even in cases that reflect a very limited knowledge, the effect of ROO is positive with respect to the willingness to recognize a premium price for wines from well known regions such as Chianti Classico (cf. German consumers), but it is also true that for expert consumers (e.g., Canadians) the effect of ROO is equally positive.

With regard to the final research question, it was concluded that there was no particular evidence that the ROO and COO effects are at work for consumers originating from "New World" (USA and Canada). The same applies for consumers coming from "Old World" (UK and Germany). In this regard, a repetition of our survey in different countries will deepen the understanding with regard to COO and ROO contributions to the overall choice process as experienced by wine consumers.

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## EX-ANTE ASSESSMENT OF AN EU-CHINA FREE TRADE AGREEMENT

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### ABSTRACT

Two of the world's largest markets, the EU and China, have initiated negotiations to lower down their markets' barriers in pursuit of a multi-billion-dollar free-trade deal. Although the European Commission has proposed a new generation of competitiveness-driven bilateral free trade agreements with emerging and developing countries, some EU member countries are skeptical of China's trade practices which have halted Brussels and Beijing negotiations. However, some EU officials have suggested that this agreement will be a stepping stone for future liberalization of the EU economy and that a free trade agreement with China is only a matter of time. The purpose of this study is to investigate the comparative advantage of EU members and China, how complementary trade is between the EU and China and how similar are the exports of these prospective FTA partners. This is a research paper based on secondary data analysis; data is obtained from various official entities. This study uses statistical and machine learning techniques in order to detect meaningful trade relationships between the EU and China.

**Keywords:** Free Trade Agreements, International Treaties, Bilateral Trade Agreements, Double Taxation Treaties, European Union, China

### INTRODUCTION

In recent years, the trade partnership between the EU and China has developed significantly; China has become the EU's biggest source of imports as well as one of the EU's fastest growing export markets. Likewise, the EU has also become China's biggest source of imports. It has been estimated that currently China and Europe's trade surpasses €1 billion a day (European Commission, 2014). Despite this significant trade partnership development, the EU records an important trade deficit with China. This is in part a reflection of China's extraordinary trade evolution, since it became a member of the WTO in 2001 (Rodrik, 2006; WTO, 2011). China's exports rate of growth has been estimated to reach 30 percent a year before the financial crisis. Currently, around 70 percent of all goods manufactured in China are exported (Li et al., 2014).

China's free trade policy has been driven by the need to secure its export growing trend and has been increasingly active in trade agreement negotiations with developed and developing countries. Since 2001, China has signed 12 trade agreements, it has six under negotiation and four under consideration; negotiations under consideration emphasize large markets such as the EU and US markets (Li et al., 2014). For a number of years, China has represented to the developed countries the opportunity of a low-cost labour force (Feenstra and Wei, 2009). Nowadays, this given fact is reversing as China is producing sophisticated components that require high-skill labour force that compete with developed countries' manufacturing products. Such competition has been related to controversial issues associated with anti-dumping and unfair competition (European Commission, 2014).

The aim of this study is to investigate the comparative advantage of EU members and China, how complementary trade is between them and how similar are the exports of these prospective FTA members. The study reported in this paper can provide fundamental knowledge for policy makers in Europe, specially when updating the policy agenda for free trade negotiations. The remainder of this paper is organized as follows: section 2 introduces the conceptual background of bilateral investment agreements. Section 3 presents an overview of related literature in this topic of research, section 4 specifies the methodology utilized in this study. Section 5 presents the findings of our study, while section 6 addresses policy implications. Finally some conclusions and recommendations are provided in the section 7.

## CONCEPTUAL BACKGROUND

Although the free trade doctrine dates back to the days of the famous economists Adam Smith and David Ricardo, it is only in the past three decades that countries from around the world have been embracing free trade agreements. The early doctrine of free trade advocated that free trade among countries leads to economic efficiencies through trade diversion. Today, the World Trade Organization (WTO) argues that free trade is directly associated with economic growth and development (WTO, 2011). The WTO promotes free trade negotiations intended at reducing international trade barriers and ensuring fair trade competition for all negotiating countries. Together with its predecessor organization the GATT, the WTO has established a strong international trading system from which 159 countries are members of this organization (WTO, 2014).

Despite the growing recognition of the role of free trade agreements, there is no consensus on the definition of these legal instruments; however, the following definition explains some of the common features of free trade agreements:

*"The WTO agreements cover goods, services and intellectual property. They spell out the principles of liberalization, and the permitted exceptions. They include individual countries' commitments to lower*

*customs tariffs and other trade barriers, and to open and keep open services markets. They set procedures for settling disputes. They prescribe special treatment for developing countries. They require governments to make their trade policies transparent by notifying the WTO about laws in force and measures adopted, and through regular reports by the secretariat on countries' trade policies."* World Trade Organization (2014)

Although the term Free Trade Agreements (FTAs) is commonly used for a variety of legal trade instruments such as bilateral trade agreement, regional trade agreement, free trade agreement, reciprocal trade agreement and preferential trade agreement, such instruments are used at different times and in different ways, differing largely from FTAs. Free Trade Agreements comprise preferential arrangements under which tariffs and some other barriers to trade are lowered only for those countries party to the agreement; these barriers for other countries are not reduced by the agreement (Brownsell et al., 2012). Therefore, distinguishing the characteristics of each of these legal instruments is an important endeavor in the assessment of their effects.

## RELATED LITERATURE

The rapid increase of international trade flows in recent decades has motivated a large and growing body of academic literature in this field. Some theoretical and empirical papers go back to the fundamentals of the theory of comparative advantage developed by David Ricardo (1817). Ricardo argued that economic prosperity will increase when countries specialize in producing goods that have a lower opportunity cost and engage in trade exchange. The theory of comparative advantage, also known as the international trade theory, is one of the most famous theories in the field of international trade and has been conveyed by a number of economists among them Harberler (1930), Vainer (1937), McKenzie (1954), Jones (1961), Paul Samuelson (2001), Shiozawa (2007). While international trade theory states that benefits from trade come from the specialization in a country's comparative advantage (Maneschi, 1999), the benefits of a country engaging in free trade agreements are stated by the theories of trade agreements.

In today's economic literature, two theoretical approaches that offer a foundation for trade agreement analysis are found: the terms-of-trade theory and the commitment theory. Both theories suggest that countries engage in signing free trade agreements to enhance their economic development policies (Obradovic, 2012). However, these theories differentiate from each other by suggesting different reasons for signing these legal instruments. The terms-of-trade theory suggest that in the absence of trade agreements countries engage in war trade which is detrimental for all countries' economy. This theory states that free trade agreements permit negotiating countries to cooperate and evade such trade war of protectionism (Maggi and Rodriguez-Clare, 2005). Whereas the commitment theory

suggests the benefit in signing a trade agreement follows from the negotiating governments committing to specific policies and to resisting pressures from domestic special interests groups. Although these theories are not mutually exclusive, both theories suggest that identification of the economic benefits for the negotiating countries as imperative (Bagwell and Staige, 2011).

There are considerable advantages for countries that engage in the liberalisation of tariff barriers which is the primary purpose of free trade agreements (Kirkwood 2011). In the present global economy, domestic industry attains significant commercial opportunities that are absent in the domestic economy. Trade liberalisation can be a positive force for economic growth and development; policies that reduce trade barriers facilitate the movement of goods and services, and deliver economic benefits (Stiglitz and Chalton, 2005; WTO, 2011). It has been found that by engaging in trade liberalisation, some countries have boosted their economy following exposure to international competition, via greater innovation and efficiency of domestic industry (Staiger and Tabellini, 1999). Despite some significant advantages that trade agreements may bring to a country, there are also significant challenges that trade liberalisation can deliver to the domestic economy; these can be directly attributed to the levels of skills of the labour force (Obradovic, 2012). However, evidence also suggests that trade liberalisation has not benefited other countries as some sectors of their economies were unable to compete in the international market; those sectors were mainly labour intensive sectors that produced low-priced goods (Stiglitz and Chalton, 2005). The World Trade Organization (WTO) tried to address these issues in the Doha Round in 2001.

The same year that the Doha Round commenced, China became a member of the WTO. China's main reason for joining the World Trade Organization was the securing of access for its export sector into the global market (Li et al., 2014). The incorporation of China as a member of the WTO has greatly benefited its economy, seminal empirical studies have demonstrated the advantages China has obtained from its WTO membership (Van-Hoa, 2008). Chinese economic reforms that started in the late 1970s, have led to the emergence of the Chinese economy based on openness and competition. Today, one of the prominent feature of the Chinese economy is its economic competitiveness expressed in the outsized surplus of its balance of payments due to the outstanding performance of the export sector. The remarkable performance of the export sector is reflected in the impressive growth of Chinese GDP in recent decades (World Bank, 2013). This extraordinary economic growth has led China to surge as an economic and political world leader, impelling an interesting discussions among academic, policy makers and business leaders.

The Chinese export sector has been characterised by its labour intensive manufacturing and low cost of production, features that have been the main attractions for foreign investment (Rios-Morales and Brennan, 2010). Although China is the world's manufacturing base, its considerable global presence in

international trade poses challenges to trading partners; some countries have experienced the decline of their exports due to strong Chinese competition (Feenstra and Wei, 2009). China has become an outstanding competitor in export markets, as well as the world's largest importer of raw material, intermediate inputs, and other goods (WTO, 2011). Furthermore, its manufacturing sector has experienced rapid development and sophistication, producing exports labeled as high-tech (Wang and Wei, 2010). The Chinese government has been actively promoting the rising sophistication of the manufacturing sector through the creation of high-tech industrial zones around the country (Rodrik, 2006). The sophistication of the export sector indicates that manufacturing skills have also been upgraded; enhanced exports are directly attributed to higher levels of skills (Van-Hoa, 2008). Therefore, China has emerged as a direct competitor with producers in developed countries (Feenstra and Wei, 2009).

## METHODOLOGY

The availability of comprehensive datasets and the very limited set of empirical studies on EU-China comparative advantages related to free trade agreements have motivated us to employ quantitative approaches to provide an assessment of the potential economic effects of the proposed free trade agreement. This is a research paper based on secondary data analysis; data is obtained from various official entities. This study uses statistical and machine learning techniques in order to detect meaningful and relevant trade relationships between the EU and China.

In order to be able to compare trends for economies that significantly differ in their size, we have computed relative rankings for a closed set of countries consisting of China and 27 EU countries. The computation starts by building two ordered lists of countries in respect of the value of their imports from some target country and exports to the same target country. Table 1 presents the lists for Austria in year 2012 for the total of all commodities.

**Table 4: Ordered lists for Austria**

Imports from Austria			Exports to Austria		
Country	Imports (in millions of USD)	Import rank	Country	Exports (in millions of USD)	Export rank
Germany	50,000	27	Germany	74,000	27
Italy	11,000	26	Italy	11,000	26
France	7,400	25	Netherlands	8,300	25
-	-	-	-	-	-
Estonia	155	3	Latvia	33	3
Cyprus	127	2	Cyprus	12	2
Malta	44	1	Malta	8	1

The positions of countries in the lists determine their export and import ranks. The country that is first in the list has rank 27 while the last one has rank 1. Taking Austria as an example, Germany has both



import and export ranks of 27 while Malta has both ranks of 1. Relative rank is defined as the difference between the export and the import ranks for the same country:

$$Relative\_rank = Export\_rank - Import\_rank$$

When Austria is the target, then in year 2012 relative ranks for Germany, Italy, Cyprus, Malta and some other countries are 0 because they have identical export and import ranks. The largest relative rank of 9 relates to the Netherlands (export rank 25, import rank 16) while the smallest value of -4 relates France (export rank 21, import rank 25) while China's relative rank is -4 (export rank 15, import rank 19). Higher values of relative ranking are characteristic of more export oriented economies.

The total relative rank for an individual country is the sum of relative ranks computed for in respect of all of the other members of the closed set of 28 countries:

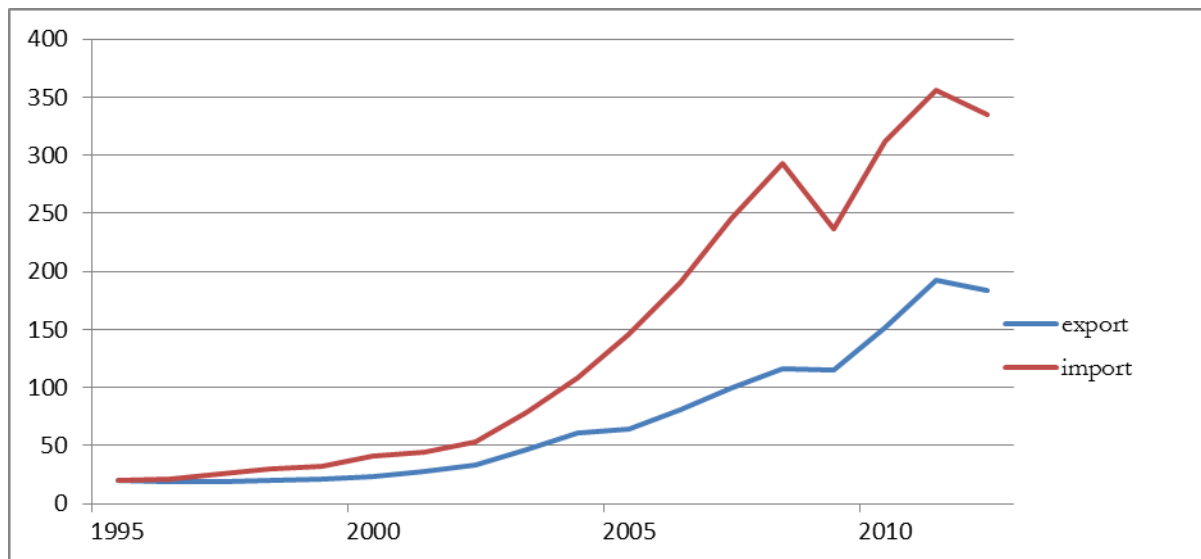
$$Total\_relative\_rank = \sum_{all\_members} Relative\_rank$$

For the year 2012 for the total of all product types, the highest total relative rank in the set of 28 countries obtains for China and equals 135. The lowest value obtains for the UK and equals -84.

A characteristic of the above defined measure is that it defines export/import characteristics of a country regardless of the actual size of the economy and regardless of general trends in international trade. For example, it means that in spite of absolute increasing trade data, the ranking of a country can be decreasing. The methodology is especially appropriate for recognizing long term trends.

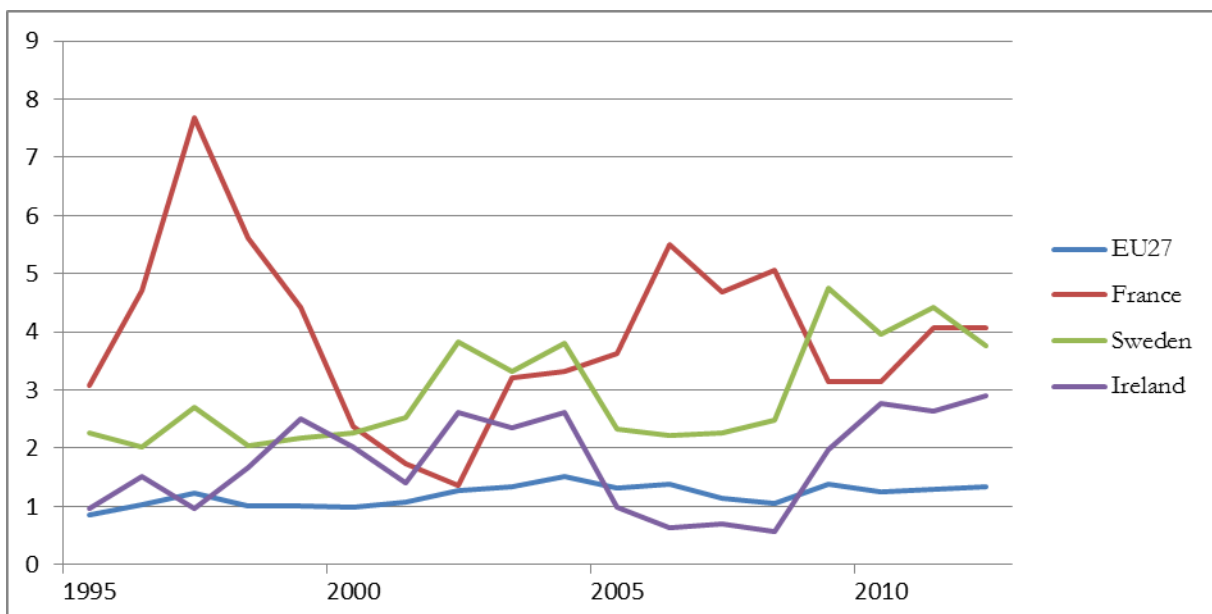
## FINDINGS

Our findings suggest that trade between the EU and China have risen at a substantial rate since 2003. In recent years, China has become the EU's biggest source of imports as well as one of the EU's fastest growing export markets. Likewise, the EU has also become China's largest source of imports. It has been estimated that currently China and Europe's trade surpasses €1 billion a day (European Commission, 2014). In the context of the development of this significant trade partnership, the EU records a significant trade deficit with China (figure 1). In 2012, the EU-China trade ratio was 0.55 (total EU exports of goods to China divided by total EU imports of goods from China). It was also found that among the EU countries, Austria and Germany have a positive trade balance with China, with ratios of 1.65 and 1.24, respectively. However, for all other EU countries the ratio was below 1.0.

**Figure 1: EU27 to China total exports and total imports (in billions of USD)**

Total all commodities EU27 exports and imports from China in billions of dollars.

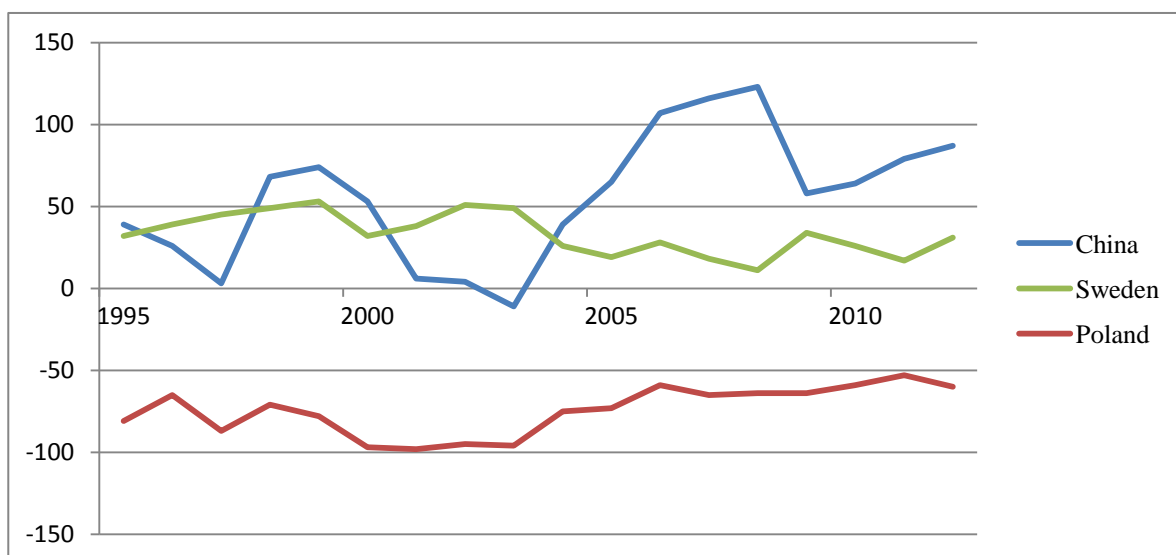
In terms of comparative advantages, we have found that the EU has comparative advantages over China in trade for the following commodities: high-skill (ratio 1.34) and medium-skill technology-intensive manufacturing products (ratio 1.96), road vehicles (ratio 4.57), primary products (ratio 1.69), and chemical products (1.19). For the following items EU has ratios less than one: manufactured goods (ratio 0.48), machinery and transport equipment (ratio 0.67), miscellaneous manufactured articles (ratio 0.13), labour-intensive and resource-intensive manufactures (ratio 0.08), office machines and automatic data processing machines (ratio 0.03).

**Figure 2: Ratio of EU exports to and imports from China for high skill manufactures. France, Sweden, and Ireland had highest ratio among all EU27 countries in year 2012.**

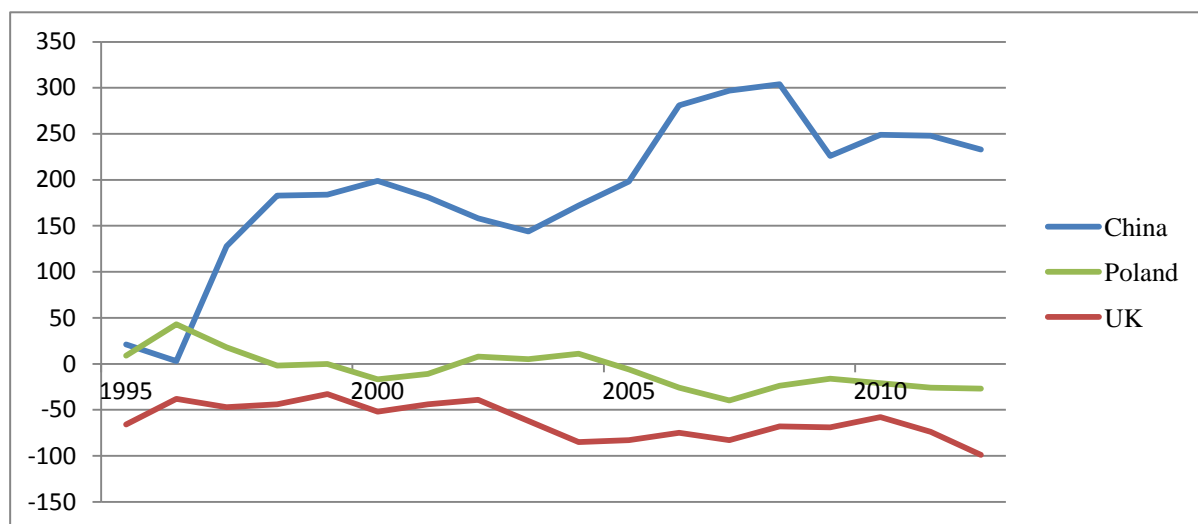
Ratio of exports and imports from China for high skill manufactures. It is presented as a total for all EU27 (blue) and for France, Sweden, and Ireland that had highest ratio among all EU27 countries in year 2012.

High-skill and technology-intensive manufactured products are potentially very relevant for EU. In year 2012 they represented 20% of total EU export. Among EU countries most successful have been France (ratio 4.06), Sweden (ratio 3.77), and Ireland (ratio 2.90) (Figure 2). In this respect the most interesting is Sweden which has recorded an almost constant increase of the export/import ratio of high-skill products with China over a period of 15 years. Large differences among EU countries can be noticed. Many less developed EU countries have a ratio in high-skill products of less than one. Actually, significant changes can be noticed within EU. When we look at the ranking data (Figure 3) then Poland is a success story with increase of almost 35 ranks in the period of 10 years. In year 2002 Poland has been a strong high-skill product importer with relative rank equal -95 while in year 2012 it had relative rank -60. In the same period Sweden has lost almost 25 ranks within EU (from rank 51 to rank 31) in spite of its success in respect of China.

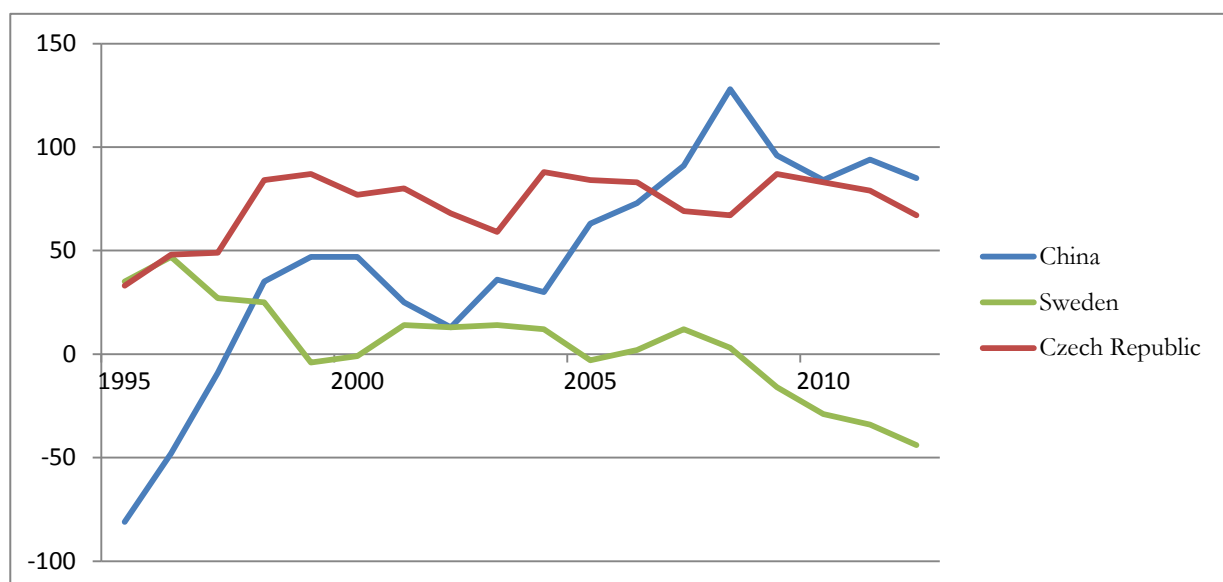
**Figure 3: Total relative rank for high-skill and technology-intensive manufactures**



In terms of skills, China demonstrates advantage over the EU in labour-intensive and resource-intensive manufactures exports. In terms of relative ranks, China has an almost constantly very high score of between 300 and 350 for labour-intensive products. Even in the case of a free trade agreement it can be expected that that relation will remain very similar. China demonstrates superiority over the EU also in low-skill and technology-intensive manufactured exports. In contrast to labor-intensive products there has been a significant Chinese increase in the period 1995-1999 but now it is almost constant with relative rank about 200 (figure 4). Among EU countries the most significant changes over the period of 10 years for low-skill products are in respect of UK and Poland. UK has lost 60 ranks (from -39 to -99) while Poland has lost 35 ranks (from rank 8 to rank -27).

**Figure 4: Total relative rank for low-skill and technology-intensive manufactures**

Medium-skill and technology-intensive manufactured exports has been the field of most notable changes in the period of the last 15 years (Figure 5). China has increased its relative rank from -81 to +85! The maximal value has been rank 128 in year 2008. The Czech Republic has been a constant success story within the EU. In the last 15 year period its relative rank has increased from 49 to 67. Even more significant has been the decline of Sweden. Its relative rank has decreased from 27 to -44. It may be assumed that similar trends will continue also in the near future and that changes may be even stronger in case of the free trade agreement with China.

**Figure 5: Total relative rank for medium-skill and technology-intensive manufactures**

Relative ranking data demonstrate most significant EU-China changes in respect of all food items, beverages and tobacco products, and agricultural raw materials. Currently these goods present a very small part of total trade, but in all of them, the EU has potential for significant export increase consistent with the significant change in the data in the past ten years in favor of EU countries.

The complementarities of the EU and China can provide opportunities for economic development. While the Chinese market becomes significant for EU exports, the EU Commission needs to be aware of the challenges that EU firms might face in the future in terms of competitiveness. EU authorities must ensure that this free trade agreement works both ways.

## POLICY IMPLICATIONS

Despite the extraordinary surge in trade between the EU and China and the interest that this topic has impelled among policymakers, market players and scholars, academic research in this particular field of research is limited. This study is contributing to scientific research in the field of international business. It will also provide fundamental knowledge for policy makers in Europe, specially when updating the policy agenda of free trade negotiations.

## CONCLUSIONS AND RECOMMENDATIONS

While trade partnership between the EU and China represents enormous opportunities for both markets, the fast growing sophistication of Chinese manufacturing, in the last past decade, denotes some challenges for the European manufacturing sector. Our study confirms that China records a significant trade surplus with Europe. This study also suggests that China has not only developed competitive advantage over the EU in labour-intensive and resource-intensive manufactured exports, but has also demonstrates over the period of the past 15 years, that medium-skill and technology-intensive manufactured exports have developed advantages over the EU. In this sector, China has increased its relative rank from -81 to +85. It may be assumed that similar trends will continue in the near future and that changes may be even stronger in case of the free trade agreement with China.

Behind China's impressive transformation in becoming one the world's biggest trading powers and of the development of its industrial structure has been China's governmental policy regime. These policies of promotion and protection have shaped the export basket with a range of increasingly sophisticated products directed to the export market (Rodrik, 2006) and have been the main driving forces of exports sophistication; hence, China signifies a direct competitor of developed countries' manufacturers (Feenstra and Wei, 2009). Therefore, the EU member countries and the Commission need to be aware of the challenges that EU firms are likely to face in the future in terms of competitiveness. EU authorities must ensure that any free trade agreement works both ways.

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## RELATIONSHIP MARKETING IN THE COMMUNITY PHARMACY: THE IMPACT OF NETWORK LOYALTY PROGRAMS ON STORE LOYALTY

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### ABSTRACT

The research was designed to explore the importance of loyalty programs in today's competitive community pharmacy environment. Although this marketing tool is used to promote a loyal behavior of the customer, the results show a weak relationship between program loyalty and store (pharmacy) loyalty. This indicates that in order to create a successful competitive advantage for the pharmacy a loyalty program needs to be of value, rare, not perfectly imitated or easily replaced. When analyzing the value perception construct, the results indicated the importance of the psychological benefits of belonging to a loyalty program. When the loyalty program is implemented, not as a resource strategy, but as a "me too" strategy it is more likely not to meet marketing expectations and the expected benefits. Additionally, the authors analyze the effects of household characteristics on program perceived value.

**Keywords:** *Network loyalty programs, pharmacy, network strategy, marketing loyalty*

### INTRODUCTION

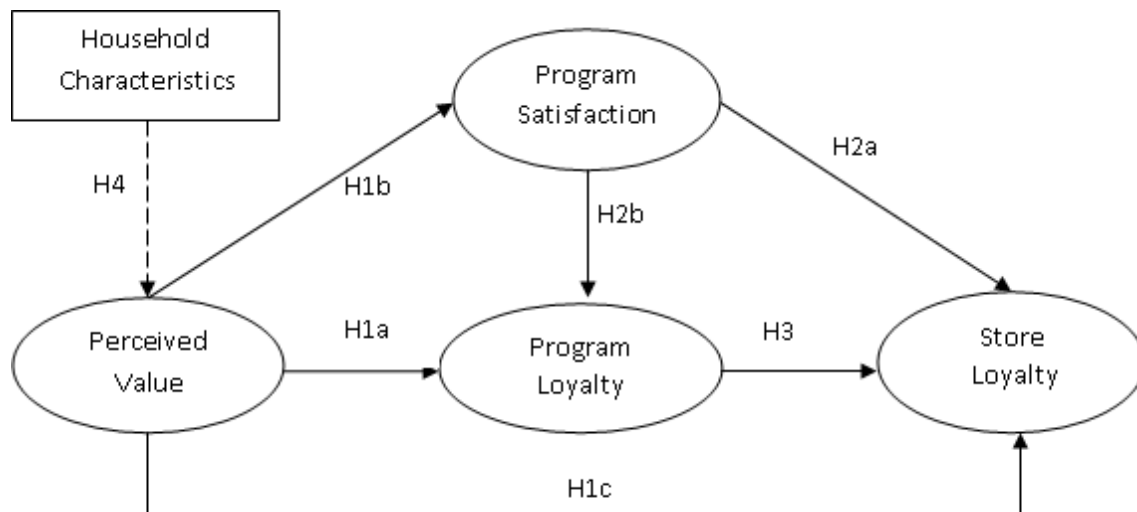
One of the most remarkable trends over the two decade in marketing has been a change of focus from single transactions to relationships (Grönroos, 1994; Hennig-Thurau & Hansen, 2000). The 60's predominated marketing-mix concept and the 4P's model, with the development of industrial marketing and services marketing, has given rise to a need for an alternative approach to the marketing concept (Aijo, 1996; Grönroos, 1996; Gummesson, 1987), that better reflected the relationships that were incorporated in the marketing-mix (Waterschoot & Bulte, 1992). Grönroos (1994, p. 9), extending the initial definition of Leonard Berry in 1983, defines the goal of relationship marketing (RM) as "establish, maintain, and enhance relationships with customers and other partners, at a profit, so that the objectives of the parties involved are met." The most successful buyer-seller relationships are characterized by mutual trust and sharing of information and continuous display of commitment and satisfactory performance of the partner's respective role (Barnes, 1994). The tangible



benefits of the adoption of RM strategies were first published in 1990 by Dawkins and Reichheld. They stated that a higher rate of retention corresponds to a higher profit for the company (Dawkins & Reichheld, 1990). These effects are explained by the fact that a company that targets the retention rate is supported by a solid base of repeat sales (Dawkins & Reichheld, 1990), by the positive word-of-mouth (Bowen & Shoemaker, 1998) and by the fact that a loyal customer tends to spend more than a new one (Bhattacharya & Bolton, 2000). Loyalty is now seen as one of the most important drivers of success in a business (Reichheld, 1996) making it the core goal of any strategic planning in marketing (Dick & Basu, 1994; Diller, 2000). As a result the last decade has seen the blossoming of the loyalty programs (LP) market, especially in retail organizations (Sharp & Sharp, 1997). LP are defined as an integrated system of marketing actions that reward and, therefore, enhance the loyal behavior of the customer through several economic, psychological and sociological mechanisms (Leenheer, van Heerde, Bijmolt, & Smidts, 2007). Despite the wide interest LP, few studies are devoted to the potential impacts of the LP on actual consumer behavior, and the research provides contradictory outcomes (Meyer-Waarden, 2007).

## CONCEPTUAL MODEL AND HYPOTHESES OF STUDY

The launch of any LP has as main objective to strengthen the relationship between the focal store and its customers, in order to differentiate it and to provide new approaches to address an increasingly competitive market. In the case of network LPs, where the management of the LP is made by a specific company, but the ownership of the LP is distributed through several firms, it is much easier to establish the firm's critical size, such as number of memberships, but this also means that the firm has limited influence on its LP strategy (Reinartz, 2006). And, recognizing that an LP does entail costs, including financial, labor and psychological capital (Uncles, Dowling, & Hammond, 2003), the authors studied antecedents and consequences of network LPs when applied to community pharmacy business. The conceptual model that forms the basis of the study is presented in figure 1. Based on the bibliographic research, six hypotheses were generated, focusing on the relationships between value perception, program satisfaction, program loyalty and store (pharmacy) loyalty. Additionally, the authors analyze the effects of household characteristics on program perceived value.



**Figure 1 - Conceptual Model**

*The effects of value perception on loyalty*

According to O'Brien and Jones (1995) a LP that effectively promotes store loyalty should combine five elements that, when together, determine the value of the program: (1) cash value of redemption rewards, (2) redemption choice, (3) aspirational value, (4) perceived likelihood of achieving rewards, and (4) the scheme's ease of use. These perceived benefits may help us understand why customers join LP and, as consequence, how this benefits drive loyalty (Mimouni-Chaabane & Volle, 2010).

H1a: The loyalty program will be positively influenced by the program perceived value.

H1b: The program satisfaction will be positively influenced by the program perceived value.

H1c: Value perception positively influences store loyalty.

*The mediator effect of satisfaction in the value/loyalty relationship*

Satisfied customers tend to concentrate their purchases within the same company more so than those customers who are not satisfied. As a result satisfaction is an important determinant of loyalty (Yang & Peterson, 2004).

H2a: Program satisfaction will have a positive effect on store loyalty.

H2b: Program loyalty will be positively influenced by program satisfaction.

*The effects of loyalty programs on loyalty*

As referred before, empirical evidence available on the effectiveness of the LP is limited and contradictory (Lewis, 2004; Mägi, 2003; Meyer-Waarden, 2007). Some researchers do express their doubts about the benefits of LP and suggest that, in a competitive market, good programs are imitated. Once the program has become generic across competing firms there would be a return to the initial situation (Meyer-Waarden, 2007; Yi & Jeon, 2003). Despite the empirical evidence, it seems

intuitive that LP members concentrate their purchases on a particular company and are less likely to visit competitors. In the case of network LPs, this relationship between program loyalty and store loyalty may not be observed since the member can distribute their purchases through several firms, and still continue to gather benefits from the LP.

H3: Store loyalty will be positively influenced by program loyalty.

*The effects of household characteristics on program perceived value*

Not all customers associate the same benefits to a certain LP (Allaway, Gooner, Berkowitz, & Davis, 2006; Mimouni-Chaabane & Volle, 2010), making it plausible that any effect of the LP in the customer behavior will be moderated by some member's characteristics (Mägi, 2003). Because it is difficult to suggest what individual factors are important, or to determine the direction of their impact, the authors did not derive a specific hypotheses related to this assumption but base this on the research related to individual differences as an exploratory character.

H4: The household characteristics influence the program perceived value.

## **METHOD**

A survey was carried out in a community pharmacy in Vila Verde, a town in the north of Portugal. It is also noted that while community pharmacies in Portugal are represented by one major institution they do compete individually in their market environment. The network LP in this environment is analyzed and results shared by several community pharmacies who then gather the combined benefits of their collective effort. The data for this study was collected by using self-administered questionnaires distributed using convenience sample technique. The population of interest for this study was defined as consumers of a focal community pharmacy who were member of the LP. The survey instrument used a comprehensive set of 17 questions that were directly tied to the four constructs of the study. The interval scale was anchored using a Likert type measurement approach. Five response categories with properties labeling for the scale end points form (1) which denotes "strongly disagree", and (5) for "strongly agree". Following the conduction of a pretest to verify the suitability of the terminology used as well as clarity of the instructions and scales, to more questions were added to characterize the type of experience the member as with the LP (reward redemption and membership time length). A total of 72 surveys were validated (See table 1).

Table 1. Seventeen questions of survey and statistical results

Measures	Mean	$\alpha$	Sources of items of the constructs
<b><i>Value perception of the LP</i></b>		0,73	
It is very easy de redeem rewards.	3,60		Sunny Hu,
The selection of products in the redeem catalog is good.	3,55		Huang, and Chen
The products available for redemption are of good cash value.	3,46		(2010)
<b><i>Program Satisfaction</i></b>		0,93	
On general, the evaluation of the LP is good.	3,94		
I made a good choice when I decided to join this program.	4,18		Omar, Musa, and
The rewards I receive, being a member of the LP, agree with what I expected.	3,59		Nazri (2007)
Overall I'm satisfied with the LP.	3,81		
<b><i>Program Loyalty</i></b>		0,88	
I like the proposed LP more so than other programs.	3,60		Sunny Hu et al.
I have a strong preference for the proposed LP.	3,83		(2010)
I would recommend the proposed LP to others.	4,04		
<b><i>Store Loyalty</i></b>		0,85	
<b><i>Attitudinal aspects</i></b>			
I have a strong preference for the proposed pharmacy.	4,14		
I like this proposed pharmacy more so than others.	4,00		
I give prior consideration to this pharmacy when shopping.	3,97		
<b><i>Price insensitivity</i></b>			
I would still continued to be a customer of this pharmacy even if it were raise prices slightly.	2,39		Sunny Hu et al.
	4,17		(2010)
<b><i>Word-of-Mouth</i></b>			
I would highly recommend this pharmacy to my friends and family.	4,17		
	3,46		
I would say positive things about this pharmacy to other people.			
<b><i>Commitment to the firm</i></b>			
I would stand by this pharmacy if its service has dropped in standard on rare occasions.			

## DATA PROFILE

Customer's sample (N=72) included 53 (76,8%) females and 16 (23,2%) males and more than 50% of the respondents aged between 24 and 44 years old. Most of the individuals had a household of three

people (34,7%) and most of them also didn't have infants in their family household (58,3%). Table 2 provides a general result of costumers sample profile.

Another important statistic was the length of experience with the LP. 70,5% of the respondents claimed that they were members for more than one year, however only 51,4% of them had already redeem points.

Table 2 - Demographic Variables

<i>Sex</i>	
	Male (23,2%)
	Female (76,8%)
<i>Age</i>	
	18-24 years old (12,5%)
	25-34 years old (31,9%)
	35-44 years old (22,2%)
	45-54 years old (6,9%)
	55-64 years old (13,9%)
	+65 years old (11,1%)
<i>Marital Status</i>	
	Single (29,2%)
	Married (59,7%)
	Divorced (8,3%)
	Widower (1,4%)
<i>Family Household</i>	
	1 (11,1%)
	2 (27,8%)
	3 (34,7%)
	4 (18,1%)
	5 (2,8%)
	+5 (2,8%)
<i>Infants</i>	
	Yes (40,3%)
	No (58,3%)

## RESULTS

In order to explore the various relationships proposed in the conceptual model, the Pearson's correlation coefficients ( $R$ ) and the determination coefficient ( $R^2$ ) were calculated between the latent constructs. The Pearson's correlations between the independent variable perceived value and dependent variables program satisfaction, program loyalty and store loyalty were analyzed. This analysis demonstrated two strong correlations: between perceived value and program satisfaction ( $r = 0.74$ ,  $p < 0.01$ ) and between perceived value and program loyalty ( $r = 0.64$ ,  $p < 0.01$ ). Analysis between the variable perceived value and store loyalty resulted in a moderate correlation ( $r = 0.419$ ,  $p < 0.01$ ). The extracted correlation from the analysis of the independent variable satisfaction and the dependent variable program loyalty has shown to be very strong ( $r = 0.82$ ,  $p < 0.01$ ). Regarding the program satisfaction variable and the variable store loyalty a moderate correlation ( $r = 0.496$ ,  $p < 0.01$ ) was found. Also moderate ( $r = 0.493$ ,  $p < 0.01$ ) is the correlation between the independent variable program loyalty and store loyalty.

To assess whether the program perceived value is dependent on some characteristics of the household, we resorted to the use of the chi-square test ( $X^2$ ) implemented in the software of statistical analysis SPSS Statistics (v.21 software, IBM SPSS, Chicago, IL). The inferential statistical analysis does suggest that the program perceived value is independent of the number of people in the household ( $X^2 = 71.7$ ,  $p = 0.421$ ,  $N = 70$ ), the existence of infants in the household ( $X^2 = 19.1$ ,  $p = 0.163$ ,  $N = 71$ ) and age ( $X^2 = 64.5$ ,  $p = 0.663$ ,  $N = 71$ ). It is also possible to claim that the program perceived value construct is dependent on the marital status of the member of the program ( $X^2 = 70.6$ ,  $p = 0.004$ ,  $N = 71$ ). See table 3 for results of the hypotheses tested.

**Table 3. Results of the Hypotheses Tested**

Hypothesis Path	R	R <sup>2</sup>	p-value	Results
H1a: Perceived Value – Program Loyalty	0,635	0,403	< 0,01	Supported
H1b: Perceived Value – Program Satisfaction	0,749	0,548	< 0,01	Supported
H1c: Perceived Value – Store Loyalty	0,419	0,175	< 0,01	Supported
H2a: Program Satisfaction – Store Loyalty	0,496	0,246	< 0,01	Supported
H2b: Program Satisfaction – Program Loyalty	0,822	0,676	< 0,01	Supported
H3: Program Loyalty – Store Loyalty	0,493	0,243	< 0,01	Supported

## DISCUSSION

One of the primary goals of this study was the evaluation of a network LP from the perspective of the pharmacy costumer. The results provide a more focused and better understanding of the process of developing an effective LP that is able to satisfy their members (consumers) and as a consequence of that satisfaction create a loyalty to the pharmacy. The incorporation of program perceived value and program satisfaction permitted the authors to test the importance of these constructs on the formation of loyalty towards the store program. As highlighted in table 2, the study determined a strong empirical support for several of the hypothesis (H1a, H1b and H2b). The study also determined there was empirical evidence supporting that members of a network LP who recognize value to the program are satisfied with it and, as a result, engage in behaviors that strengthen their relationship with the community pharmacy. These results are in agreement with previous studies (Sunny Hu et al., 2010; Yi & Jeon, 2003). It should, however, be noted that, by splitting the path between program perceived value and store loyalty in two ways it was determined that the positive influence that perceived value has upon store loyalty is stronger if a loyalty program exists. This result is in agreement with previous studies (Sunny Hu et al., 2010; Yi & Jeon, 2003) that explain the mediator effect of program loyalty on store loyalty. However, unlike the outcome of these previous studies that found no significant correlation between program perceived value and store loyalty the authors established a positive correlation, although moderate, between the two constructs.

The results indicate that the value of the loyalty program is perceived by consumers and that these consumers are satisfied with it. It should be noted, however, that many of the program members, while claiming to be satisfied with the loyalty program never actually collected (enjoyed) the tangible benefits which were the possibility of exchanging loyalty points for products. Possibly, the psychological benefits of belonging to the LP and accumulating points have an important role in the construction of their perceptions of value and consumer satisfaction levels, as suggested by Dowling and Uncles (1997) even when these same consumers do not actually participate in the tangible benefits of the program. In line with this reasoning are the results of Arbore and Estes (2013) who explored the role of psychological benefits, and how the LP through the possibility of rewarding its members with prizes or discounts can influence their perceived status.

The assumptions of the authors that the program's perceived value would vary according to age and depending on the type of household were not confirmed. This result contradicts the results of previous studies (Meyer-Waarden & Benavent, 2003) that reported the possession and use of LP is dependent on the different life cycles and that are function, for example, of age and profession.

## CONCLUSION

As Barney (1991) stated in his work, in order to any strategic resource to become a sustained competitive advantage it has to be valuable, rare, imperfectly imitable and non-substitutable. The weak correlation between program loyalty and store loyalty could be explained by the fact that this network LP is not exclusive property of the focal pharmacy. This implies that there may be members who are only loyal to the program (not the specific store) and will dividing their purchases among the several pharmacies within the same loyalty program. Regardless of type and goal to be achieved with the LP any program should have as its strategic objective to contribute to increase the operating profit of the company. This finding may have consequences for companies that use a franchise system where a central loyalty program could increase overall firm profits but not promote a unique loyalty/profitability to a specific store. The findings also indicate that as more firms come under competitive pressure to adopt LPs as a marketing tool without a clearly developed strategy such programs may not generate a competitive advantage for the company.

## RESEARCH LIMITATIONS

In consideration of limitations or generalizations of research outcomes two factors should be considered. The first relates to the study's external validity as the respondents were selected by convenience so may not be an accurate representation of the population of community pharmacy LP members. A second weakness the endogenous nature of LP meaning that already loyal customers have a higher tendency for engaging in a LP. This phenomenon may artificially enhance the effects of program loyalty on store loyalty.

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## FIRM AGE AND FIRM PERFORMANCE: A LITERATURE REVIEW

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### ABSTRACT

*Purpose* – In the last thirty years the link between firm age and performance has fascinated a lot of scholars. The debate on this topic have produced mixed results, which resulted in extensive economics debate, albeit without a systemic vision. As a result, the firm age literature has not yet developed a paradigm and the purpose of this paper is to present a review of the existing literature.

*Design/methodology/approach* – Author carried out a review of literature on firm age and performance.

*Originality/value* – Since 1990 there has been a major attention on firm age and firm performance. To address this important topic paper presents here a review of literature, starting to a simple question: age benefits performance?

**Keywords:** *firm age, longevity, firm performance, old firms, new firms.*

### INTRODUCTION

In biology, aging is a process related with a decline in the physical functioning of a body, such as the capability to remember, move, and hear (Loderer and Waelchli, 2010). It is interesting to know whether firms also weaken/strengthen and increase/lose their ability to compete over time, and to know why that happens.

Early empirical work on firm dynamics looked at firm size but not firm age. The seminal work by Gibrat (1931) led to interest in the firm size distribution (FSD) (e.g. Hart and Prais, 1956; Simon and Bonini, 1958) and also in the relationship between firm size and growth rate (e.g. Hall, 1987; Hart and Oulton, 1996). However, later on interest in firm age began to grow, as some studies included age as an explanatory variable in regressions that investigate differences in firm performance. Nevertheless the relevance of age to firm dynamics has attracted comparatively little attention (Stinchcombe, 1965; Dunne, Roberts, and Samuelson, 1989; Singh and Lumsden, 1990; Brüderl and Schüssler, 1990; Barron, West, and Hannan, 1994; Caves, 1988; Hannan, 1998, Hannan, Pólos, and Carroll, 2003a, b), except in the management literature. <<The prior belief would seem to be that age benefits performance. For one thing, firms learn about their abilities and about how to do things better as they get older. For another,

the available empirical evidence shows that life expectancy increases with age, and that better firms survive. There are, however, reasons to disagree>> (Loderer and Waelchli, 2009: 4).

The paper is organized as follows. Next section outlines a literature review on firm age and firm performance, and finally paper presents the conclusions and managerial implications.

## **FIRM AGE AND PERFORMANCE: A LITERATURE REVIEW**

The relationship between firm age and survival has been investigated by a growing number of scholars (Evans, 1987a,b; Fariñas and Moreno, 2000; Mata and Portugal, 2004; Bartelsman et al., 2005), but the results have not been clear-cut.

An early contribution coined the term “liability of newness” to describe how young organizations face higher risks of failure (Stinchcombe, 1965). More recently, however, authors have referred to the “liability of adolescence” (Bruderl and Schussler, 1990; Fichman and Levinthal, 1991).

For Bruderl and Schussler (1990) it's possible to distinguish <<two periods of an organizational life cycle. In an early phase, referred to as adolescence, death risks are low, because decision makers are monitoring performance, postponing judgment about success or failure. Meanwhile, organizations often live on a stock of initial resources. In a later phase, initial monitoring has ended and organizations are subject to the usual risks of failure>> (Bruderl and Schussler, 1990: 530).

Fichman and Levinthal (1991) develop a research on liability of adolescence that explain why firms face an initial honeymoon period in which they are buffered from sudden exit by their initial stock of resources.

It's possible to underline two different vision in the organization evolution of firms: the first one suggests that old and large organizations become increasingly dominant over their environment, the second one suggests that as organizations age they become less able to respond to new challenges.

Barron et al. (1994) investigate <<which of these visions best characterizes the evolution of state-chartered credit unions in New York City from 1914 through 1990 by analysing the effects of organizational age, size, and population density on rates of organizational failure and growth. The authors find evidence that old and small institutions are more likely to fail, while young and small organizations have the highest growth rates>> (Barron et al., 1994: 381). They identify “liabilities of senescence and obsolescence” according to which older firms are expected to face higher exit hazards once other influences (such as firm size) are controlled for.

Various studies in the Industrial Organization literature, report that life expectancy increases with age (Dunne et al., 1989), and better firms survive (Baker and Kennedy 2002). Hopenhayn (1992) shows that, under plausible assumptions, older firms enjoy higher profits and value. The general thrust of the literature on the survival of firms has taken two directions. One starts from the process of

learning by doing and examines the impact of learning on survival firms (Jovanovic, 1982). He affirms that the longer a firm remains in the market, the more it learns about its true costs and its relative efficiency and the less likely it is to fail.

An alternative, complementary approach is reflected in the work of Gort and Klepper (1982). They view variations in survival as consequences of changes in the rate and character of technological change as an industry evolves over the life cycle of its principal products. This approach is confirmed and extended by Jovanovic and MacDonald (1994a).

Also other studies sustain this point of view. In fact, there is ample empirical support for the proposition that survival and age have a positive relation. Dunne et al. (1989), using Census of Manufactures data for sixteen years (1972-87), find a positive relation between firm age and survival throughout the observed age range. Baldwin and Gorecki (1991) examine entry in Canadian manufacturing industries in the 1970-81 period and find high mortality among entrants. Audretsch (1991) analyse the experience of 11,000 manufacturing firms over a ten year period; he reaches a similar conclusion about the relation of age and survival.

Hopenhayn (1992) develops a dynamic stochastic model for a competitive industry. <<The paper extends long-run industry equilibrium theory to account for entry, exit, and heterogeneity in the size and growth rate of firms>> (Hopenhayn, 1992: 1127). Paper results show that, under acceptable assumptions, mature firms realize higher profits and value.

Baker and Kennedy (2002) realize a study builds on research from both finance and industrial organization and is consistent with a Schumpeterian view of economic development. <<The death of old firms and the subsequent birth of new ones thus greatly hastens economic development. Death by takeover allows a target firm's management to redeploy the assets of the disappearing firm; death by bankruptcy and liquidation often puts those assets into the market for reallocation to new managers>> (Baker and Kennedy, 2002: 351).

Two studies that underline why age could impair performance are Hannan and Freeman (1984) and Leonard-Barton (1992). For these scholars there are different reasons why age could harm performance. In fact they confirm their attention on the organizational rigidities and inertia. In their perspective age can have adverse effects on performance also because of the organizational rigidities and inertia it brings about and because it impairs the ability of firms to perceive valuable signals. This conduct often makes sense, because it helps firms focus on their core skills and raise reliability and accountability (Hannan and Freeman, 1984). Codification makes it hard to recognize, accept, and implement change when doing so would be appropriate. Also age reduces flexibility and discourages change. At the same time, whatever learning benefits the firm can capture in its established lines of

business, they probably decline over time. As pointed out above, the stock of learning might increase at a decreasing rate. Overall, older firms could therefore lose their competitive edge.

More recently, other researchers have analysed the role age plays in the performance of surviving firms (Calvo, 2006; Garnsey et al., 2006; Stam and Wennberg, 2009).

Calvo has investigated age effects by focusing specifically on samples of young firms. In his article he tests Gibrat's Law for small, young and innovating Spanish firms: <<All the results reject Gibrat's law and support the proposition that small firms have grown larger. Additionally, the results show that old firms grow less than young ones, and innovating activity – both process and product – is a strong positive factor in the firm's survival and its employment growth>> (Calvo, 2006: 117).

Garnsey et al. (2006) explore processes and paths of new firms growth. They <<find that new firm growth is non-linear and prone to interruptions and setbacks to an extent overlooked in the literature. From the model of development used, five propositions are drawn concerning measurable features of new firms' growth paths; these relate to patterns of survival, continuousness of growth, turning points, reversals and cumulative growth>> (Garnsey et al., 2006: 1).

Another important analysis on the role age plays in the performance of surviving firms was conducted by Stam and Wennberg (2009). They present empirical evidence on the effects of research and development (R&D) on new product development, interfirm alliances and employment growth during the early life course of firms. << The main finding of this study is that R&D plays several roles during the early life course of high-tech as well as high-growth firms. The effect of initial R&D on firm growth seems to be through increasing levels of interfirm alliances in the first post-entry years. R&D efforts enable the exploitation of external knowledge>> (Stam and Wennberg, 2009: 85).

Coad (2010) studies the processes of firm growth by applying a vector autoregression model to longitudinal panel data on French manufacturing firms. He observes the coevolution of key variables such as growth of employment, sales, gross operating surplus, and labour productivity growth. <<Preliminary results suggest that employment growth is succeeded by the growth of sales, which in turn is followed by growth of profits. Generally speaking, however, growth of profits is not followed by much employment growth or sales growth. Quantile regressions highlight some asymmetries between negative-growth and fast-growth firms>> (Coad, 2010: 1677).

Other scholars (Cabral and Mata, 2003; Angelini and Generale, 2008; Cirillo, 2010) have tracked the evolution of the firm size distribution overtime, for cohorts of ageing firms.

Using a comprehensive data set of Portuguese manufacturing firms, Cabral and Mata, (2003) show that the firm size distribution is significantly right-skewed, evolving over time toward a lognormal distribution. <<Past conventional wisdom has held that expected firm growth rates are independent of size (Gibrat's Law), and that the firm size distribution is stable and approximately lognormal. Recent

empirical evidence, however, shows that the first of these facts does not hold when considering more complete data sets than those used in the past. In this paper, we show that the second fact a lognormal distribution of firm size also fails to hold in more complete data sets>> (Cabral and Mata, 2003: 1083). Their paper document two stylized facts about the firm size dimension: the distribution of young firms is very skewed to the right (most of the mass is on small firms); and the skewness tends to diminish monotonically with firm age (the distribution of older firms is more symmetric than that of young firms). Their paper presents a simple theoretical model in which financial constraints determine the observed FSD evolution, and provides supporting empirical evidence. Starting from this article Angelini and Generale (2008) focus the attention on the evolution of firm size distribution. They develop a study based on a sample containing survey-based measures of financial constraints for Italian firms. Main results are: <<Our main results, based on a sample containing survey-based measures of financial constraints for Italian firms, can be summarized as follows. First, the negative link between financial constraints and firm size is confirmed: firms that declare to be constrained are on average smaller than those that do not. Second, when narrow definitions of financial constraints are adopted, such constraints seem to be a real problem for a small minority of firms. Third, financial constraint problems are found to be relatively more frequent among very young firms, those up to six years of age, but not enough to alter the previous two conclusions>> (Angelini and Generale, 2008: 435-437). Cabra and Mata contribution inspire also Cirillo's research (2010). In fact, he realises a similar analysis with Italian firms using the CEBI database, also considering firms' growth rates.

Other research has focused on differences in performance and behaviour across firms of different ages. For example, it has been suggested that the age of a firm is positively related to its productivity levels: <<In our sample of long-lived large firms, we find that differences in the mix of workers across businesses are significantly related to differences in productivity levels across businesses, but there is little discernible relationship between changes in productivity and changes in worker mix>> (Haltiwanger et al., 1999: 97).

Brown and Medoff (2003) investigate the relationship between how long an employer has been in business (firm age) and wages. They find that firms that have been in business longer pay higher wages: <<Another interesting (though, given the size of our sample, somewhat tentative) conclusion is that the relationship between firm age and wages is not monotonic. Wages fall as firm age increases, but this relationship appears to be reversed among older firms>> (Brown and Medoff, 2003: 694). The seniority rules in the organization was studied by Loderer and Waelchli (2009). In many firms, under a seniority principle, employees who have been with the organization longer have benefits at the expense of rookie employees. Whatever the reason for their existence and acceptance within the organization, seniority rules in compensation can provide inadequate incentives for managers to

perform. If so, the performance of older firms could deteriorate with the age of the organization (Loderer and Waelchli, 2009: 7).

A relation between firm age and performance could also be induced by the age and tenure of the managers within the organization. Finkelstein and Hambrick (1990) underline three different reasons why older managers could be responsible of organizational inertia:

1. <<as individuals spend time in an organization, and particularly as they succeed and climb the organization's hierarchy, they become convinced of the wisdom of the organization's ways>> (Finkelstein and Hambrick, 1990: 486),
2. << Related to the effects tenure has on commitment to the status quo are those it has on risk taking. At one level, commitment derives from certain "psychological risks" of change>> (Finkelstein and Hambrick, 1990: 487), and
3. <<Finally, tenure tends to restrict information processing. Over time, organization members develop habits, establish "customary" information sources, and rely more and more on past experience instead of on new stimuli>> (Finkelstein and Hambrick, 1990: 487).

Bartelsman et al. (2005) realize a comparative analysis of firm demographics and survival in OECD countries. <<While average firm size differs across countries, due to both sectoral specialization and within-sector characteristics, we find similar degrees of firm churning across countries. In most of them, about 20% of firms enter and exit most markets every year; and about 20–40% of entering firms fail within the first 2 years of life. However, post-entry growth of successful entrants is much higher in the USA than in Europe, which may be indicative of barriers to firm growth as opposed to barriers to entry>> (Bartelsman et al., 2005: 365).

An interesting research was developed by Bellone et al. (2008). They examine market selection – in French manufacturing in the nineties – along the firm life cycle. This article <<argues that the determinants of firm survival have different effects depending on firm age. Results show that exiting firms display low levels of profitability and productivity. This selection process is more severe for young firms because industry structures favour the survival of mature firms>> (Bellone et al., 2008: 753).

Firm life cycle, obsolescence and firm's original endowments are main topics of two important studies developed by Agarwal and Gort (1996, 2002). They report evidence that hazard rates initially fall and then rebound as firms get older. The authors see survival as the trade-off between obsolescence of a firm's original endowments, on the one hand, and net investments and learning-by-doing, on the other. Eventually, the increase in endowments falls below the obsolescence rate. This could be explained with two reasons:

- the first one is that the stock of learning increases at a decreasing rate (important lessons are learned first and there is only a finite stock of information to be learned about a technology);
- the second one is that the adaptability of old endowments diminishes and investment opportunities in new technology shrink as the product market ages.

In 1996, they examine entry, exit and the survival of firms in terms of evolutionary changes in the market from the first introduction of a product to maturity of the market. Agarwal and Gort (1996) show the key role that the evolutionary stage of the product cycle plays in determining entry, exit and survival rates of firms: <<Entry rates appear to be affected profoundly by stage-related changes in both the rate of technical advance and the form that innovations take. Exit is determined largely by stage-related changes in the intensity of competition. Survival rates reflect both market and individual firm attributes. The role of market attributes, once again related to the stage of the product cycle, is reflected initially in rising hazard rates for early entrants in new markets. The power of market attributes is also reflected in the higher survival rates for new entrants than for incumbents for high-technology products>> (Agarwal and Gort, 1996: 497).

In 2002, Agarwal and Gort starting from a simple question: <<What is it, other than random shocks, that determines the probability of survival for a firm in a given market?>> (Agarwal and Gort, 2002: 184), analyse Firm Life Cycles and Firm Survival. They show that <<firm survival is crucially dependent on both the product and the firm life cycles. With regard to the firm life cycle, there appear to be two spans of time over which hazard rates decline. The decline continues until the obsolescence of initial endowments finally raises hazard rates... The relation of survival to age of the firm is not simply an empirically observed regularity, but follows an endogenously determined path predicted by the life cycle of the firm. The result that technology intensive industries are associated with higher hazard rates is explained by the faster obsolescence of initial endowments in such industries>> (Agarwal and Gort, 2002: 190).

Huergo and Jaumandreu (2004a,b) have investigated how probability of innovation and productivity growth, change across the firm age distribution. In the first article they look at the probability of introducing innovations by manufacturing firms at different stages of their lives. Their results show that <<the probability of innovating widely varies by activity, and that small size per se broadly reduces the probability of innovation, but also that entrant firms tend to present the highest probability of innovation while the oldest firms tend to show lower innovative probabilities>> (Huergo and Jaumandreu, 2004a: 193). In a second article authors look directly at the impact of firms' age and (process) innovations on productivity growth. They found <<that firms enter the market experiencing high productivity growth and that above-average growth rates tend to last for many years, but also that productivity growth of surviving firms converges. Process innovations at



some point then lead to extra productivity growth, which also tends to persist somewhat attenuated for a number of years>> (Huergo and Jaumandreu, 2004b: 541).

Autio et al. (2000) observe that 'born global' firms, experience faster growth in international sales than their older counterparts. They interpret this finding as evidence that younger firms are better able to develop export capabilities because they are better able to learn how to succeed in uncertain environments. <<The central contributions of this study include the introduction of the concept of "learning advantages of newness" and a confirmation of the usefulness of knowledge-based and learning views for understanding international expansion issues. We proposed that as firms get older, they develop learning impediments that hamper their ability to successfully grow in new environments and that the relative flexibility of newer firms allows them to rapidly learn the competencies necessary to pursue continued growth in foreign markets>> (Autio et al., 2000: 919).

Berger and Udell (2005) analyse the source of small business finance, and how capital structure varies with firm size and age. They identify some notable qualitative differences between the financing of small business in different age (infants, adolescent, middle-aged, old): <<We identify four different source of equity and nine different sources of debt, and show how the capital structure changes with the size and age of the firm>> (Berger and Udell, 2005: 50).

Similarly, Reid (2003) tracks small businesses in their first few years after inception and observes that the debt ratio decreases over time. He expounded a dynamic theory of the small firm <<assuming entrepreneurs maximise business value over a finite time horizon>>. He conducts a research on thirty-five key financial variables for one hundred and fifty new small business starts over a three year period after inception. Principal results are: <<(a) Steady growth of output (sales), including some phases of consolidation, (b) Steady growth of capital, as measured by fixed assets, (c) Sensitivity of debt (observable also through gearing) to the interest rate on long-term debt, (d) Absence or deferral of dividend payments, (e) Retiral of debt when sales are consolidated. This could be attributed to a cheap equity regime, (f) Increase in debt when sales are rising. This could be attributed to a cheap debt regime, (g) Arguably a sensitivity of equity (observable also through gearing) to the relative costs of debt and equity>> (Reid, 2003: 283).

An interesting research was conducted by Coad et al. (2010). They analyse the firm performance related to firm age between 1998 and 2006, for Spanish manufacturing firms. They begin their work with a simple question: do firms deteriorate with age (like milk) or do they improve with age (like wine)? <<In this paper we found evidence supporting both the milk hypothesis and the wine hypothesis. As evidence that firms improve with age, we found that ageing firms experience rising levels of productivity, profits, larger size, lower debt ratios, and higher equity ratios. Furthermore, older firms are better able to convert sales growth into subsequent growth of profits and productivity.

On the other hand, we also found evidence that firm performance deteriorates with age. Older firms have lower expected growth rates of sales, profits and productivity, they have lower profitability levels (when other variables are controlled for), and also that they appear to be less capable to convert employment growth into growth of sales, profits and productivity. Analysis of the growth rate distributions for different age groups shows that older firms are less likely to experience fast growth, while they are just as likely as younger firms to experience rapid decline>> (Coad et al., 2010: 26). Furthermore their results that younger firms are more successful at converting employment growth into growth of sales, profits, and productivity. Meanwhile, older firms look to do better at converting sales growth into growth of profits and productivity.

The analysis of literature review shows that there isn't an unique point of view on relationship between longevity and performance. This brief literature review has shown that, although progress has been made in our understanding of how firm age affects firm performance, there are still many opportunities remaining for improving our understanding of how firm behaviour changes as firms grow older.

## CONCLUSIONS

Although firm age has attracted the attention of a big number of scholars, results have often been mixed. The complexity of the phenomenon is attested to by the fragmentation of the literature, which has prevented the formulation of a general theory on this topic. Most of the existing researches has been empirical work.

These considerations are equally valid for the relation between firm age and firm performance. The large part of studies are focused generically on firm performance, only a little part of these studies are focused on financial performances.

The heterogeneity of scholarly contributions in this field is also related to the difficulty of defining the subject of investigation: firm age can be studied referring to young firm or old firm. Also on performance the analysis can be conducted on innovation performances, organizational performances, financial performances, or other performances. However, all these considerations can explain only partially the excessive fragmentation of the literature. Naturally, literature fragmentation is not limited to the field of firm age and performance, but in this field it provides a clear opportunity for progress. To take advantage of this opportunity, however, it is necessary to conduct a comparison of the various themes, methods of investigation, and data used. Only in this way will it be possible to explore in depth this topic, which remains controversial as far as methodology, objectives, and results are concerned because of its extreme complexity.

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## EXPLORING CONTINUITY OF CARE IN INTEGRATED HEALTH CARE SETTINGS

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### ABSTRACT

Continuity of care is considered to be an important feature of high quality health care. It is a wide-ranging concept, that encompasses several different aspects of health care. However, it is not often evaluated explicitly, because of the lack of suitable measurement instruments. Therefore, the purpose of this paper is to identify chronic patients' experiences and values associated to continuity in care. In order to accomplish this purpose a single focus group interview with 12 chronic ill patients has been carried. Collected responses were analysed thematically and grouped into dimensions of continuity of care. As a result of the study, eight dimensions of experienced continuity of care were identified: patients' involvement, decision-making support, cross-boundary continuity, coordination of activities, communication with the patient, problem solving, availability, and patient-centeredness. This study develops a patient-based framework for evaluating continuity of care. Is also identifies key transition points with problems of lack of continuity.

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**Keywords:** *relationship management, quality indicators, patients' experience, health care, qualitative study*

### INTRODUCTION

Health care is becoming more patient-centred and, as a result, the experience of users of care and evaluation of their experience are considered seriously, and used to evaluate the delivery of care (Vrijhoef *et al.*, 2009; Wagner *et al.*, 2005). There is considerable amount of literature about patient satisfaction and experience (Linder-Pelz, 1982; Pascoe, 1993), but it is not clear how to appropriate the instruments are to measure patient experience with care in integrated health care settings. The issue becomes even more important when, quality and satisfaction tools validated by health plans are implemented as a marketing instrument. This is especially the case in current policies towards the integration of health care in Poland.

Integration of care is defined by the WHO as “bringing together inputs, delivery, management and organization of services related to diagnosis, treatment, care, rehabilitation and health promotion wherein integration is regarded as a means to improve the services in relation to access, quality, user satisfaction and efficiency” (Gröne and Garcia-Barbero, 2001). Considering patients’ perspective in this integrated care approach, a measurement instrument is needed to appropriately evaluate the experience of chronically ill people.

Continuity of care is considered to be an important feature of high quality integrated health care. It is a wide-ranging concept, that encompasses several different aspects of health care. There is evidence that continuity of care is linked with grater patient satisfaction (Schers et al., 2005; Mechanic, 2004). However, it is not often evaluated explicitly, because of the lack of suitable measurement instruments. Therefore, the purpose of this paper is to identify chronic patients’ experiences and values associated to continuity in care. The study has been based on the research project sponsored by the National Science Centre in Poland (No. 2012/05/B/HS/02213).

## **THEORETICAL FRAMEWORK**

The term of continuity of patient care appears in numerous discussions as a fundamental aim of integrating the process of health care service provision in Europe (Antunes and Moreira, 2011). In turn, patient satisfaction is a reflection of the problems occurring during a service provision process. Any loopholes in the process coordination, be it between service providers themselves, or between patients and care providers, can thus be treated as threats to continuity of patient care, which impacts on the achieved treatment results (Weinberg et al., 2007). In the context of integrated health care, continuity of patient care is understood as a qualitative dimension concerning seamlessness of health care process provision. The legacy that the 1990’s left behind is the perception of continuity of care from the patient’s perspective, as the patient’s experience of a coordinated and seamless progress/development of care (Cowie et al., 2009).

Currently, researchers use multi-dimensional models to describe the discussed concept. One such model is Haggerty’s team interpretation, treating continuity of care as a combination of (Haggerty, 2003):

- informational continuity – ability of a service provider, from the patient’s perspective, to take the right decisions based on sufficient information source regarding patient’s medical history;
- management continuity – ability of a service provider/network of service providers, from the patient’s perspective, to establish a cohesive care management plan;
- relational continuity – ability of a service provider, from the patient’s perspective, to continue the provision of care by medical professionals the patient is familiar with.

What is crucial in this interpretation for further consideration is adding long-term relations to continuity as well as concentrating on an individual patient and his/her needs. In turn, concentration on an individual patient lies close to the concept of patient/client-oriented care, and more broadly to human-oriented care (Kodner, 2003).

In this paper we adopt multi-dimensional concept of continuity established by G.K. Freeman (Freeman et al., 2003). He defined continuity of care as experiencing a coordinated and smooth sequence of health services by patients. In order to achieve it, according to G. Freeman (Freeman et al., 2003), a health care system needs to feature:

- continuity of information – ensuring information transfer following the patient in the system,
- cross-boundary and team continuity – ensuring effective communication between professionals and services and with patients,
- flexible continuity – ensuring adjustments to patient's needs over time,
- longitudinal continuity – minimizing the number of physicians treating a given patient in a given health care unit (such as family physician practice),
- relational continuity – assigning one or more individuals with whom the patient can establish and maintain a relationship in the therapeutic process.

What has emerged clearly from above discussion of defining continuity of care is that there is still considerable conceptual and empirical debate surrounding this issue. Based on empirical findings and the conceptual development of the continuity of care concept, continuity of care understood as service quality indicator is now often believed to be the antecedent of patients' satisfaction (Kasper *et al.*, 1999; Schneider and White, 2004). Approached from our proposed vantage point, the measurement of continuity of care would be thus about a perception (*this is what I observe*), perhaps relative to expectations; the measurement of patient satisfaction would be about an evaluation (*this is what I feel*).

#### Purpose and Method

The main purpose of this paper is to identify chronic patients' experiences and values associated to continuity in care. To accomplish it a qualitative study was carried out. The qualitative study comprised of a single focus group interview (FGI) conducted in the form of an open discussion with 12 patients suffering from a chronic condition, who may be treated as informants. The procedure of the focus group interview followed the guidelines set forth for that type of study (Krueger, 1994).

The study was guided by two research questions:

- what variables do patients perceive to be significant in the continuity of care?,
- how can the isolated elements be grouped in order to establish a model of evaluating patient care quality in the respect of continuity of care?

Potential participants of the patients' panel were intentionally selected through a community interview. The criteria of participants' selection for the focus group interview were as follows: the patient is an adult, the patient suffers from a chronic medical condition

- on account of a chronic illness the patient has frequent (over 7 times a year) contact with the health care system, the patient is able to participate in a meeting lasting approximately 2 hours.

An analysis of transcripts of the gathered material allowed identifying 56 comments defining patients' needs, feelings, preferences and experiences in respect of health care in chronic conditions. Subsequently, the statements were entered into ATLAS.ti software program for management of qualitative study data. Preliminary analysis involved encoding the comments from the transcript of the FGI. Then the author assigned the encoded comments to several central categories by applying Strauss' and Corbin's method of comparison in pairs (Glaser and Strauss, 2009). The names of sets were identified on the basis of the literature of the subject dedicated to integrated health care. Their understanding and interpretation were also submitted to discussion with patients during the plenary panel.

## RESULTS

The qualitative study comprised of a focus group interview (FGI) conducted in the form of an open discussion with patients suffering from a chronic condition, who may be treated as informants. Tables 1,2,3, and 4 show the patients' characteristics.

Number of chronic diseases	Number of FGI participants
1	5
2	3
3	2
More than 3	2

Table 1. Patients by number of chronic diseases suffered. Source: own research.

Dominant chronic condition suffered	N
Hypertension	4
Diabetes	3
Coronary heart disease	2
Pulmonary conditions	2
Cancer	1

Table 2. Patients by dominant chronic condition suffered. Source: own research.



Age (years)	N
<40	1
40-50	2
51-65	3
66-75	4
Above 75	2

Table 3. Patients by age. Source: own research.

Gender	N
female	10
male	2

Table 4. Patients by gender. Source: own research.

The central categories (labels) comprised: patient involvement, decision-making support, availability, communication, organization and coordination of the service provision process, continuity, problem resolution and focus on the patient. As a result, a schedule of central categories and sub-categories was compiled describing the dimensions of service quality provided to chronically ill patients, which can be treated as indicators and sub-indicators in the evaluation of service quality delivered to the analysed patient segment (Table 5).

Groups of indicators identified in the literature and confirmed by the FGI - main category (in brackets – reference to the Freeman's model)	Contents of indicator groups identified via the FGI – sub-indicators
1. Patient's involvement (Freeman's team continuity)	-patient's opinion
	-time devoted to hear the patient
	-information on subsequent stages of therapy, action scenarios
	-history taken by the physician with extended patient's involvement
	-patient's involvement in decision making
2. Decision-making support (Freeman's continuity of information)	-guidelines concerning patient's conduct
	-consultations conducted by other means than the traditional method
	-provision of printed material
	-organized community support
3. Cross-boundary continuity (Freeman's cross-boundary continuity)	-relational continuity
	-organizational continuity

	-informational continuity
4. Organization of care provision and activities coordination (Freeman's longitudinal continuity)	-action coordinator, case manager
	-standardization of care over chronically ill patients
	-cohesion of medical advice
	-information exchange between physicians
	-comprehensive care
	-diagnostics
	-timely services (time coordination)
	-multi-disciplinary teams
5. Communication with the patient (Freeman's relational continuity)	-communication with the patient regarding purpose of care
	-communication with the patient regarding health promoting conduct and prophylactics
	-standardization of gathering patient's history
	-explaining the therapeutic process and its expected results to the patient
6. Problem resolution (Freeman's continuity of information)	-therapy planning
	-impact of a disease on life quality
	-emergency cases and exacerbation of a disease
	-continuity of care and treatment
7. Availability (Freeman's flexible continuity)	-sensitivity of the system to patient's suggestions
	-availability of various services at one location
	-possibility of choice
	-therapy waiting time
8. Focus on the patient (Freeman's experienced continuity)	-availability of information as to where and how to arrange matters
	-empathy demonstrated by the personnel
	-respecting patient's rights
	-evaluation of the system from a patient's perspective

Table 5. Central categories and their detailed dimensions of continuity of care delivered to chronically ill patients identified in the FGL.

Source: own research.

Most of the indicators (central categories) identified above, such as patient involvement, decision-making support, problem resolution, communication with the patient, activities organization and coordination, flexibility and availability refer to the process of service provision to patients with

chronic conditions. The remaining ones, i.e. ensuring continuity in its various dimensions, focus on the patient, are of structural nature.

## DISCUSSION AND FINDINGS

Analysing the results obtained through the FGI, it is worth emphasizing that the chronically ill patients themselves rarely use terms such as: “continuity of care”, “coordination”, “therapy planning”, “integration of care” to describe their experience, needs and feelings with regard to systematic use of health services. Furthermore, assigning a particular experience or need expressed in a patient’s comment to one of the eight main categories was problematic at times on account of mutual interrelation of individual dimensions and possibility of illustrating a number of various sub-categories with a single comment at the same time.

Patients described their previous experience with health care system in regard to continuity as the care they have been receiving since the diagnosis identifying their chronic condition was made. They were referring to check-ups and systematically repeated tests related to a given chronic disease. Some declared that “patients need to demand the tests from their doctors,” (P5, female, 64 years old) “the patient more often than not reminds the doctor of it,” (P4, female, 63 years old) or they articulated their needs for such tests by saying: “a family doctor should recommend that a patient of a particular age (i.e. an elderly patient) take the tests that the patient is entitled to on account of his/her age” (P8, female, 73 years old). The respondents were also referring to the significance of continuity of care by demonstrating their concern resulting from deficiency of care:

-“intervals between visits [are] 9, 10 months – I believe that it is too rarely. It is hard to refer to a doctor you see so seldom as your attending physician” (P1, male, 41 years old).

High frequency of visits and consultations resulting from exacerbation of condition symptoms seems to be the parameter describing the quality of care delivered to a chronically ill patient. This component acquires particular significance at the start of therapy, where the patient’s ignorance is confronted with the need to deal with a chronic condition on an everyday basis. Hence patients particularly value extensive consultations with numerous specialists at initial episodes of chronic diseases, which improve their understanding of the circumstance they are in. The effect of such an attitude to the service recipient, which in fact constitutes an indicator of the focus on the patient (patient in the centre), involves closer adherence to therapy regime and acceptance of any related inconveniences.

Experience of longitudinal continuity may be perceived as a pre-condition necessary for the establishment of relational continuity. Patients appreciate the situations in which they are recognizable. It builds their sense of security, which may contribute to achieving better therapeutic

results: “when I come to the outpatient clinic, everyone knows me, greets me and it is very pleasing” (P3, male, 81 years old).

The element of continuity of care in chronic diseases that the patients value is the possibility of obtaining assistance/consultation in emergencies. Flexible continuity also manifests itself through service provider’s readiness to change appointment dates suitably to patients’ preferences. Here is an account of one of the FGI’s participants describing her experience in this regard: “they have their schedules, and I have mine” (P12, female, 45 years old). A majority of patients experience lack of flexible continuity, especially with respect to the waiting time for scheduled consultations and delays in making appointments. Here are several responses recorded during the FGI:

- “there was no problem with issuing a referral, however there was one with actually making use of it” (P2, female, 39 years old).

Communication and its continuity appear to be another important component of patient care in patient-service provider relation. The quality of communication is chiefly defined as the ability to listen to the other party and to convey a certain amount of information, including on the course of therapy, any possible adverse effects, any risk related to a procedure, expected results. Patients’ experience in this respect related during the group interview was rather negative. The following patients’ accounts are symptomatic:

- “I had no idea that [if] I take Eutyrox it will cause diabetes. No one has informed me of that” (P6, female, 70 years old),

- „The doctor just whizzed by” (P9, female, 69 years old).

The element of continuity of care in chronic diseases that the patients value is the possibility of obtaining assistance/consultation in emergencies. Since the needs of chronically ill patients change over time, they find it important that medical professionals react quickly enough. Such situations may thus be related to flexible continuity, which involves adaptation of a service to the patients’ needs. One such option is provision of services by medical professionals selected by the patient. Here is how one of the interview participants perceives the phenomenon: “I have a regular cardiologist, however not the one I would have liked, but the one I had to choose” (P7, female, 62 years old).

Erosion of continuity may occur at any stage of the process of patient care provision, although the greatest risk of it appearing exists in the course of a patient’s transfer from one stage of health care to another, for instance from primary health care to secondary specialist outpatient care, from outpatient care to hospital-based setting, or from hospital-based setting to primary care. Transition of the patient from one stage of care to another typically involves exacerbation of symptoms; it necessitates more extensive diagnostics or a hospital discharge. All of the above situations generate a different demand for health care and different intensity of health care services consumption. The loopholes in the

continuity of health care may therefore result in delays of care provision, misinformation, or problems of a communicative nature. Consequently, the patient may seek alternative solution to the medical problem, disregard medical advice, or even decide to discontinue treatment.

## ORIGINALITY / VALUE

The results of the conducted qualitative study constitute an important premise for the construction of a methodological tool, comprising a set of indicators describing continuity of care from the perspective of the patient. Identification of the dimensions of health care continuity over chronically ill patients in Polish health care settings as well as identification of any possible loopholes in such continuity constitutes a vital cognitive value of this stage of methodological procedure.

The developed framework provides an assessment of various dimensions of continuity of care that is applicable to integrated health care settings in Poland but could also serve as a reference list for evaluating continuity of care in other settings. Assessment of these aspects of patients' experience is of particular value in relation to chronic disease management in Poland and other countries that face aging societies.

As does most research, this study has certain limitations that affect the interpretation of the results and simultaneously suggest directions for further research. The study was conducted in a single region (West Pomerania). Including other regions of Poland might have identified contextual boundaries to the findings. Moreover, the study is comprised of a single FGI and could have benefited from including additional ones.

Additional research related to continuity of care could examine whether some quality dimensions are common across health care levels (primary care, out-patient specialist care, in-patient care) or relevant only for particular level (in that case out-patient). It could also refine the assessment tool referring perceived quality of integrated health care programmes. Finally, further research could address the value of different integrated delivery schemes and overall success of the patient relationship management.

Despite above mentioned limitations, the findings reported in this paper offer a better understanding of relationship marketing in health care settings.

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## CUSTOMER PERCEIVED VALUE IN BUSINESS-TO-BUSINESS

### MARKETING: IS IT STILL ENOUGH?

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#### ABSTRACT

This study provides a better understanding of business relationships between suppliers and industrial buyers. Based on previous research models, we explored the value drivers that industrial buyers, in particular health professionals, perceived as relevant in the hearing-aid distribution industry. A nationwide online survey was the principal data-collection instrument. Based on previous research, we evaluated several drivers measuring the perceived value delivered by hearing-aid suppliers, including offer quality, service elements, relationship costs and personal interaction. We researched not only the customer value (CV) but also the ability of the suppliers to anticipate customer needs. The results demonstrated that other than offer quality, none of these drivers represents or affects the customer value. However, these drivers were found to affect the anticipation of customer needs, surprisingly demonstrating that succeeding in each of the drivers reflects the anticipation of customer needs but not customer value.

**Keywords:** *customer value, supplier–customer relationships, customer value anticipation, business-to-business relationship, health-care professionals, industrial marketing, service quality, service marketing, switching cost, vendor evaluation.*

#### INTRODUCTION

Research investigating customers' perceptions of value generally distinguishes between 'desired value' (what the customer desires to receive) and 'received value' (the customer's perceptions about the value delivered). This perspective can be termed 'value for the customer'.

Woodruff (1997) found that many apparently different definitions were actually in fact similar, generally involving a trade-off between what the customer receives, identified as quality, benefits, worth, or utilities, and what they give in exchange. Ulaga and Eggert (2006) highlighted that in business-to-business (B2B) contexts, relationship benefits seem to represent a strong potential for differentiation in key-supplier relationships. According to Flint *et al.* (2002), the implication for managers is that they should attempt to understand the whole-value hierarchy of their offering and avoid defining it strictly by its attributes. Buyer value can be created at any point in the chain by

making the buyer either more effective in their markets or more efficient in their operations. The notion of value has been at the heart of marketing for nearly 20 years (Ritter and Walter, 2012). Before communicating the value offering to customers, companies should translate the value-delivery strategy into detailed actions and activities to be undertaken at any level of the organisation. Customer value has been found to measure some important aspects that are generally not included in customer-satisfaction measurements. Measuring customer value can be of particular help in today's changing and highly competitive business environment because it allows a comparison between alternative offerings and provides data that is useful for understanding and anticipating customers' current and future needs.

Research has demonstrated that deeper insight into the sources of value creation can create superior value propositions in a competitive global marketplace (Anderson and Narus, 2008; Blocker *et al.*, 2011; Heinonen *et al.*, 2013). Business marketers have cited the need for greater understanding of the drivers of customer value as a priority (Anderson and Narus, 2008).

Our study focused on customers' perceived value (CV) defined as the customers' perceived trade-off between benefits and sacrifices within relationships (Lam *et al.*, 2004; Ulaga and Eggert, 2006; Blocker *et al.*, 2011; Prior, 2013). and customer value anticipation (CVA) in B2B contexts.

This study aimed at contributing to the debate on customer value by advancing its exploration and considering the business relationship between suppliers and industrial buyers (their customers) of health-care services. We tested different constructs (offer quality, personal interaction, service support, supplier know-how, relationship costs, operational costs) to measure the value perception delivered by their suppliers.

The research model of this study is based on the need for more research on measuring the constructs of the B2B context in different complex industry sectors (Blocker *et al.*, 2011; Lindgreen *et al.*, 2004; Ritter and Walter, 2012; Prior, 2013). The choice of health-care services was due to the increasing attention of scholars on such services in the B2B context (Crié and Chebat, 2012). This study attempts to address the calls of previous research to provide new insight into customer value through a national online survey conducted in Italy exploring customers' value perceptions and CVA at the retailer level in the hearing-solutions industry in Italy.

## LITERATURE

Most recent B2B literature (Walter *et al.*, 2001; Nyaga *et al.*, 2010; Lepak *et al.*, 2007; Ritter and Walter, 2012) simply defines customer value as a trade-off between benefits and sacrifices perceived by the customer in a supplier's offering. The benefits and sacrifices perceived, and hence the perception of value, may vary depending on the changes in the importance given to the distinct elements of the



offering. Ulaga and Eggert (2006) found that in B2B contexts, relationship benefits seem to represent a strong potential for differentiation in the key-supplier relationship. Core differentiators would be represented by service support and the interpersonal interaction with the supplier firm and, secondarily, by the supplier firm's expertise and ability to improve a customer's time to market. Relationship value in the B2B context is a dynamic process, and the nature and characteristics of the value sought are constantly changing across different supply-chain members (Cannon and Homburg, 2001).

Research on building customer-value theory in B2B contexts has focused on defining the concept of customer value (Woodruff, 1997), measuring its antecedents (Ulaga and Eggert, 2006), and exploring value creation as a process (Grönroos, 2008) that dynamically unfolds in relationships (Blocker and Flint, 2007; Flint *et al.*, 2002). Smith and Colgate (2007) identified four major categories of value that organisations can create: functional/instrumental value, experiential/hedonic value, symbolic/expressive value, and cost/sacrifice value.

Blocker *et al.* (2011) tested the role of proactive customer orientation for creating customer value in global markets. Their hypothesis was based on the consideration that the higher complexity of a multinational context makes it more difficult for customers to evaluate providers and fosters feelings related to ambiguity and risk. Understanding the customer's value chain and their end values and goals in the value hierarchy is very useful in discovering the customer's unexpressed and latent needs. Another interesting area of research is the CVA dimension that is defined as the kind of capability that can be seen as a dynamic capability (Eisenhardt and Martin, 2000), itself an extension of the resource-based view of the firm, and more specifically, a specific kind of dynamic capability termed an 'operant resource' (Flint *et al.*, 2011). There are several operations of business using different customer-value constructs (Smith and Colgate, 2007; Russo and Cardinali, 2012). However, there remains a gap in the literature on the role anticipation on the part of the supplier plays in contributing to the level of value customers perceive suppliers help to create.

Blocker *et al.* (2011) model provided a relevant contribution to the literature by exploring the antecedents of customer value, for example, standards. Starting from this point, our study allowed us to compare the value constructs measured by Blocker *et al.* (2011) as applied to the ICT industry context. We particularly considered the following key factors: the offer quality, personal interaction with employees, support services, supplier's know-how and relational/transactional costs from the perspective of specialized hearing-aid buyers. Table 1 lists the hypothesis of our study.

	Research Hypotheses
	HP1 OFFER QUALITY
	HP1a The offer quality of products and services provided by the main supplier has a positive effect on customer-value perceptions in a B2B context.
	HP1b The offer quality of products and services provided by the main supplier has a positive effect on CVA perceptions in a B2B context.
	HP2 PERSONAL INTERACTION
	HP2a The personal interaction and the relationship with the main supplier has a positive effect on customer-value perceptions in a B2B context.
	HP2b The personal interaction and the relationship with the main supplier has a positive effect on CVA perceptions in a B2B context.
	HP3 SERVICE SUPPORT
	HP3a The service support provided by the main supplier has a positive effect on customer-value perceptions in a B2B context.
	HP3b The service support provided by the main supplier has a positive effect on CVA perceptions in a B2B context.
	HP4 SUPPLIER KNOW-HOW
	HP4a The specialised expertise and know-how of the supplier has a positive effect on customer-value perceptions in a B2B context.
	HP4b The specialised expertise and know-how of the supplier has a positive effect on CVA perceptions in a B2B context.
	HP5 RELATIONSHIP COSTS
	HP5a The amount of relationship costs derived from the partnership with the main supplier has a negative effect on customer-value perceptions in a B2B context.
	HP5b The amount of relationship costs derived from the partnership with the main supplier has a negative effect on CVA perceptions in a B2B context.
	HP6 SWITCHING COSTS
	HP6a The costs that a business customer faces to switch from one supplier to another have a positive effect on customer-value perceptions in a B2B context.
	HP6b The costs that a business customer faces to switch from one supplier to another have a positive effect on CVA perceptions in a B2B context.
	HP7 CUSTOMER VALUE AND CVA
	HP7a The ability of the supplier to anticipate the customer's needs has a positive effect on customer-value perceptions in a B2B context.
	HP7b The overall customer-value perceptions have a positive effect on the evaluation of CVA by business customers.

Table 5. *Research hypothesis*

Our study concentrated on the analysis of the manner in which value is perceived and evaluated by specialist buyers, particularly focusing on the supplier's ability to deliver value, as well as its capability to anticipate value .

## METHODS

### *Data sample and collection*

Data collection focused on perceived value drivers with business customers working in the health-care

service. We surveyed key informants (i.e. acting industrial buyers) about their perception of the value delivered by their main provider of hearing aids.

The health industry was selected for several reasons. The complexity of the products in the market has driven final customer to search for advice from trustworthy and reliable sources. As such, this industry represents a good example of a changing marketing-channel structure that has emerging actors who have adopted a larger role in the manufacturer/end customer exchange.

We used the following participant inclusion criteria:

- professionals enabled by law to resell hearing aids
- professionals running a business at the retail level
- professionals with the freedom of choice of their suppliers
- voluntary participation.

We identified 840 health-care professionals belonging to the Italian Audiologists Association (ANA) who met the criteria. However, 340 were excluded because they were actors of structured hearing-aid distribution chains (i.e. franchisees) and therefore, did not meet the freedom of choice criterion. We selected 500 health-care professionals who met the criteria and sent them an email with a link to a secure web survey. This survey was completed after a pre-test that refined the structure of the survey, and the items involved in the survey.

In September 2013, a pilot survey was administered on a convenience sample of 20 participants. The principal finding was that respondents, due to their cultural background, found it difficult to understand some of the items of the original version of the questionnaire. Consequently, it was necessary to refine the structure of the survey and of some of the items listed in the survey, by providing examples for each item proposed.

Questions were divided into two main sections. Section A surveyed the demographic characteristics of respondents and the information about the relationship with their key hearing-aid supplier (e.g. experience with hearing-aid products, length of the partnership, total expenditure with their main supplier). Section B surveyed customer-value constructs adopting a 1–7 Likert scale (i.e. 1=highly dissatisfied to 7=highly satisfied).

We received 317 complete responses; all respondents were audiologists running a small business in the Italian hearing-aid distribution industry. They purchased products/services from hearing-aid suppliers and they were enabled by law to resell them to hearing-impaired end users. They were the key players in the transaction between suppliers and the hearing-impaired end users, evaluating the best value offering and advising the final customers.

On average, respondents had been working for several years within this industry and seventeen per cent had experience of 'more than 30 years'. Thirty-eight per cent declared having long-term

experience in the industry (i.e. from 20 to 30 years), and 39 per cent indicated having 'from 10 to 20 years' experience. Only six per cent had fewer than 10 years' experience within the industry.

Forty-three per cent of the participants declared having a long-term relationship of more than 7 years with their main supplier, and 40 per cent of respondents declared 70 per cent to 90 per cent of their total expenditure was to their main supplier. At least 20 per cent stated they received 90 per cent of their products from their main supplier.

#### *Data analysis*

Respondents were asked to evaluate the main value drivers provided their main hearing-aid supplier. This included the main value drivers highlighted by previous research in other B2B industries (Blocker, 2011; Blocker *et al.*, 2011; Ulaga and Eggert, 2006, Lam *et al.*, 2004). In addition, the construct of CVA was added to the model, first as a predictor, then as the dependant variable (Flint *et al.*, 2011).

Customer-value constructs	Items	Min	Max	Mean	Std dev
Offer quality	3	1.333	7.000	5.035	1.092
Personal interaction	3	2.333	7.000	5.634	1.003
Service support	3	1.000	7.000	3.358	2.21
Supplier know-how	3	1.000	7.000	3.623	2.003
Relationship costs	3	2.000	4.667	3.086	0.457
Switching costs	3	2.000	7.000	4.956	1.727
CVA	4	1.000	6.250	2.721	1.00
Customer value	3	2.000	7.000	5.213	0.744

Table 6. *Customer-value constructs*

Data were analysed through descriptive statistics, a correlation analysis among the main constructs and a linear regression model exploring the effect of the value drivers on the overall customer value and on the CVA perceived by business customers. The following regression models were elaborated using R software:

a)

$$\text{Customer Value} = \beta_0 + \beta_1 \text{ Offer Quality} + \beta_2 \text{ Personal interaction} + \beta_3 \text{ Service support} + \beta_4 \text{ Supplier know how} + \beta_5 \text{ Acquisition costs} + \beta_6 \text{ Switching costs} + \beta_7 \text{ Customer value anticipation} + \varepsilon$$

b)

*Customer Value Anticipation =*

$$\beta_0 + \beta_1 \text{ Offer Quality} + \beta_2 \text{ Personal interaction} + \beta_3 \text{ Service support} + \beta_4 \text{ Supplier know how} + \beta_5 \text{ Acquisition costs} + \beta_6 \text{ Switching costs} + \beta_7 \text{ Customer value} + \varepsilon$$

To assess reliability, we assessed the internal consistencies. The value of the normalised Cronbach's alpha was 0.72, in line with the minimum value of 0.7 suggested by Cortina (1993). The value of Cronbach's alpha for each item was also examined to verify whether the exclusion of any items could improve the overall alpha.

## FINDINGS

Table 3 presents the main correlations among the drivers, highlighting a strong and positive correlation between the different value drivers (e.g. personal interaction, service support, supplier know-how) with the evaluation of the ability of hearing-aid suppliers to anticipate customers' needs (i.e. CVA).

Customer-Value Constructs	Correlation of Constructs							
	1	2	3	4	5	6	7	8
1. Offer quality	1							
2. Personal interaction	-0.166	1						
3. Service support	-0.487**	0.483**	1					
4. Supplier know-how	-0.417*	0.632**	0.913** *	1				
5. Relationship costs	-0.504**	0.444**	0.690** *	0.665***	1			
6. Switching costs	-0.081	0.614	0.414*	0.601***	0.517**	1		
7. CVA	-0.097	0.603***	0.663** *	0.758***	0.353	0.550**	1	
8. Customer value	0.410**	0.225	0.054	0.125	0.023	0.231	0.247	1

Table 7. *Correlation of constructs*

The results confirm previous research that has found value creation to be a dynamic process (Grönroos, 2008), where providers need to identify and anticipate latent needs (Blocker *et al.*, 2011).

Very few constructs are connected to customer value. For example, this is seen in offer quality having a positive relationship with overall customer value. Generally, relationship costs and switching costs are not correlated with customer value or CVA.

The first regression analysis focused on the effect of several value-drivers constructs on the overall customer-value perception (Table 4).

Customer-Value Constructs	Regression Analysis For Customer Value			
	Estimate	STD error	T value	PR(> T )
Intercept	1.637	0.515	3.179	0.001**
Offer quality	0.379	0.041	9.176	< 2E-16***
Personal interaction	0.081	0.052	1.539	0.124
Service support	0.012	0.049	0.250	0.802
Supplier know-how	0.033	0.061	0.547	0.584
Relationship costs	0.203	0.129	1.570	0.117
Switching costs	0.009	0.032	0.299	0.765
CVA	0.066	0.063	1.048	0.295

Signif. codes: 0 '\*\*\*' 0.001 '\*\*' 0.01 '\*' 0.05 '.' 0.1 ' ' 1

' 1

Residual standard error: 0.6303 on 307 degrees of freedom

Multiple R-squared: 0.3031, Adjusted R-squared: 0.2827

F-statistic: 14.84 on 9 and 307 DF, p-value: < 2.2e-16

Table 8. Regression analysis for customer value

Customer-Value Constructs	Regression Analysis For Cva			
	Estimate	STD Error	T Value	PR(> T )
Intercept	0.996	0.468	2.127	0.034*
Offer quality	0.137	0.041	3.322	0.001**
Personal interaction	0.192	0.0465	4.131	4.66E-05***
Service support	0.139	0.043	3.192	0.001**
Supplier know-how	0.259	0.053	4.857	1.90E-06***
Relationship costs	-0.635	0.111	-5.703	2.77E-08***
Switching costs	0.087	0.029	3.008	0.002**
Customer value	0.053831	0.051	1.048	0.295

Signif. codes: 0 '\*\*\*' 0.001 '\*\*' 0.01 '\*' 0.05 '.' 0.1 ' ' 1

Residual standard error: 0.5684 on 307 degrees of freedom

Multiple R-squared: 0.6901, Adjusted R-squared: 0.681

F-statistic: 75.96 on 9 and 307 DF, p-value: < 2.2e-16

Table 9. Regression analysis for customer value anticipation

The results demonstrate that all these constructs (adopted from previous literature) do not represent or affect the evaluation of customer value apart from the perception of offer quality.

However, this result is not the same when considering CVA, the perception and evaluation of which might be the result of business customers' perception of almost each value-driver construct (Table 5).

In this case, all the value constructs are significant and positively related to CVA. The conclusion is that some customers might come to expect suppliers to anticipate their needs and desires (even if they themselves cannot). As shown by Grönroos (2011), suppliers' actions can be more effective if they are able to anticipate and provide solutions to unexpressed needs. In addition, relationship costs negatively affect the ability of the main supplier to anticipate customer needs, as the more the customers need to spend and invest to maintain the relationship with the supplier, the less the supplier is able to satisfy their customers' needs effectively. In such a scenario, competitive advantages can be obtained by suppliers identified by customers as able to match their needs spontaneously with a flexible offer (Prior, 2013).

## IMPLICATIONS

This study has allowed us to investigate the different constructs of value perceived in the B2B relationship. Further, this study contributes to the B2B marketing and relationship literature about health-care buyers' (at the retail level) perceived value towards their main suppliers. This study also provides useful implications in the analysis of the manner in which these buyers can affect the value proposition from the supplier in the B2B context, identifying different factors of importance of value drivers, and evaluating the supplier's ability to deliver value in a specific business context. The relevance of our findings is that CVA capabilities appear to be an operant resource that may offer a competitive business advantage.

This study addresses the need to assess the increasing complexity of understanding the roles (Flint *et al.*, 2011), relationships, and drivers among buyers, suppliers, and other parties in marketing channels (Prior, 2013; Ritter and Walter, 2012).

Our study found that the technical features of the product were of secondary importance. In dealing with their customers, hearing-aid suppliers should move away from concentrating on the technical features of a device to focusing on the provision of support for its successful operation. This implies that suppliers should grant ongoing practical support and service to customers by also anticipating their needs on the basis of their wider and deeper knowledge of the market. We have demonstrated that buyers desire proactive suppliers. CVA capability seems to be a distinguish resource offering potential competitive advantages in competitive sector. From a business-management perspective, the results suggest that effective cooperation between suppliers and specific buyers is required. Improving the cooperation of all these service-network participants is paramount to improving product and services provision to end users.

## CONCLUSION

Our study confirms the importance of strong cooperation between hearing-aid suppliers and the retailer. The justification of the necessity of this cooperation lies in the fact that retailers do not resell a standard product. Rather, they offer their final clients a personalised solution that includes the device, several fittings, and assistance services. Final clients search for a unique hearing solution and expect the audiologist to be flexible and sympathetic, just as audiologists as retailers expect their suppliers be proactive in offering flexible and anticipating solutions, indirectly matching final clients' expectations. In sum up, it seems that the value-anticipation process is intrinsic to this market. Further consideration could be given to the possibility of adopting a vertical integration process that would allow the supplier and retailer work in very close contact to ensure their perspective of the offer system is similar.

Our results are limited to aspects of CV and CVA operationalised in a specific business context and our research does not explain to how this is done. Future research on CV and CVA could be conceptualised in a more complex manner, particularly focused on understanding how suppliers might effectively anticipate the needs of the customers.

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## STRUCTURAL CAPITAL IN KNOWLEDGE ECONOMY: GENERAL INSIGHTS

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### ABSTRACT

**Purpose** – The paper aims at analysing the role of structural capital in the current scenario, defining the management and evaluation profiles.

**Methodology** – The research approach is based on a qualitative methodology with the application of a single method approach. The sources of research are of a secondary type (paper, news, journal open access).

**Findings** – The findings of research originate from systematization of international literature. The objective is to represent the strong and weak points of the management and economic evaluation profiles of structural capital.

**Originality/value** – Structural capital favours the circulation of knowledge within a company and stimulates the creation of long term value. In this way, accessibility to company knowledge plays a rather important role if analysed from an internal perspective as well as from an external perspective.

**Keywords:** *structural capital, intellectual capital, management, economic assessment.*

### INTRODUCTION

In the past decades, international literature (Lev, 1999; Guthrie and Petty, 2000; Stewart, 1997) has actively examined the theme of intellectual capital.

Despite the fact that taxonomy on this theme is varied, the paper analyses the structural capital and its management and assessment profiles. The objective is to offer the academic community and experts in this field with an updated conceptualization on this theme.

So, the objective of the research is in defining the role of structural capital in contemporary organizations (Zanda, 2011). Structural capital can be interpreted by starting with the definition of intellectual capital. Through a qualitative research approach, international literature on this topic is examined, supposing that the creation of long term value is generated by the very best management of structural capital.

The structure of the article is the following. After the introduction, section two analyses the literature related to intellectual capital, structural capital, its management profiles and economic appraisal.

Section three describes the research approach adopted. Section four illustrates the research results. Section five illustrates the final considerations, the limits and future perspectives of the study.

## LITERATURE REVIEW

### Intellectual Capital in Knowledge Economy

Ever since the Nineties, the attention focused on knowledge has resulted in confirmation of the strategic role of intellectual capital (Petty and Guthrie, 2000; Kaufmann and Schneider, 2004).

This immateriality is seen as a range of intangible resources that, if correctly appraised in company management (Darroch, 2005; Du Plessis, 2007), result in an increase in long term company value (Chen et al, 2005).

The OECD (1999) considers intellectual capital as the economic value of two categories of intangible company resources: structural capital (or organizational) and human capital. The structural capital of a company refers to elements such as the characteristics of computer systems and distribution networks; human capital includes internal company resources (personnel) as well as external company resources (customers and suppliers). The definition identifies a specific distinction of the term intellectual capital and intangible resources, often mistakenly used as synonyms.

Peterson and Bjurstrom (1991) highlight another definition of intangible resources. The authors classify company intangibilities into three macro categories: human capital, market capital and confidence capital. Human capital includes a range of qualities that characterize the resources used within the company, such as leadership (Bennis and Nanus, 1985; Bradford and Cohen, 1984; Friedman, 1985; Mintzberg, 1973), motivations, know-how and the ability to achieve the objectives; the capital market identifies the perception that customers have of the company and of its products; finally, confidence capital indicates the opinions as well as the behaviour of company stakeholders with regards to the company, as well as the ability of the company to prove its reliability.

Edvinsson, Saint-Onge and Petrash (Edvinsson and Malone, 1997) have drawn up a model called the Value Platform. It can identify the inter-relations that are important for the creation of value. They identify human capital, organizational capital and customer capital as elements of intellectual capital.

Stewart (1999) defines intellectual capital as “all intellectual material – knowledge, intellectual features, experience – that may be made available to create wealth”. According to the author, intellectual capital consists of three conceptual dimensions: human capital, relational capital and structural capital.

Structural capital represents coded and non coded company knowledge, technology, inventions, formal and informal organizational procedures, best practices, patents, databases and Intranet networks.

### Structural Capital and Its Management

Structural capital is an expression of the organizational and management aspects of a company; it can be defined through the range of coded and non coded knowledge of the characteristics of a contemporary company.

Sullivan (2000) examines the intellectual activities deriving from the innovations produced by intellectual capital. Intellectual assets include programmes, inventions, processes, databases, methodologies, industrial projects and intellectual property rights (patents, copyrights, brands, trade secrets) on which the company can claim property rights.

As far as Sveiby is concerned (1997) structural capital (or the internal structure) includes a range of patents, models, administrative systems and software created by employees and owned by the organization. Company culture is also included.

Company culture plays a very important role in the development or organizational aspects that can generate, management and maintain intellectual capital within the organization; it includes a range of rules, values and principles that affect the decisions made by company employees.

This generates a dynamic interdependence between human capital and structural capital. The knowledge and skills of each individual play a very important role in the creation of structural capital. Individual knowledge is appraised, diffused among company employees and transformed into action. The role played by structural capital in the creation of value has resulted in the need for development of its management methods aimed at greater availability of knowledge within the organization (Sánchez et al., 2000).

The increase in this immateriality favours the circulation of knowledge within the company and stimulates the creation of long term value (Teece, 2000; Varian, 2005).

In this way, accessibility to company knowledge plays a very important role if analysed from an internal as well as external perspective.

Starting from the internal perspective, intangible goods require adequate management methods as they are characterized by a high level of dispersion. This characteristic results in the need for collection and coding.

A creative approach to coded knowledge presumes its conceptualisation with regards to the new situation.

The creation of knowledge generates resistance by the holders, who fear that they may lose their prestige and contractual power with regards to the organization. Furthermore, the knowledge of the competitors can be copied and new costs related to use of internal personnel as well as requests for external consultancy may arise.

In order for knowledge to be diffused within the organisation and contribute to the creation of new internal capital, the company must develop:

- a leadership focused on knowledge management initiatives (Alavi and Leidner, 1999; Bollinger and Smith, 2001) that stimulates personnel to favour the exchange of knowledge;
- a culture that encourages the development and use of cognitive capital, also in a modern manner;
- operative systems that favour sharing of the knowledge assets by employees;
- an organizational structure of a reticular type in which individuals are assigned shared values and objectives. This kind of organisational structure allows for the outlining of variable responsibilities, which in turn stimulate individuals towards greater creativeness and dynamism in answering external requests.

Structural capital belongs to the organisation in its entirety. It may be reproduced and made available to each individual (Stewart, 2002; Daum, 2003).

An analysis of accessibility of structural capital involves problems related to knowledge management. The development and creation of new knowledge also requires important investments. Consequently, the demand to protect such knowledge from imitations and embezzlement by others, so that the company may take advantage of the economic benefits deriving from creation of the innovative idea. The methods of protection that contemporary organizations make use of also include a technical protection and a legal protection.

The technical protection limits access to knowledge developed through access control. Legal protection, however, allows the modern company to legally protect the knowledge developed against improper use by others, that may use them without any right to do so.

Legal or technical protection of structural company capital has two results. It stimulates company investments in terms of research and development but at the same time it limits the diffusion of knowledge and, subsequently, the creation of new knowledge due to the effect of its accumulation.

#### The Economic Value of Structural Capital

The economic value of structural capital may be estimated through the use of three main approaches: the cost-based approach, the value-based approach and the real option-based approach.

The cost-based approach is based on historical cost and on reproduction cost for an estimate of the economic value of structural capital.

The historical cost includes all costs borne by the company related to invention and application activities of a technology. This method is not easy to apply: many mutual costs borne in the various research centres exist and the total of costs may not adequately represent the value of technology. The cost of reproduction represents all of the costs required for the creation of an element of utility similar

to the technology included in the estimate. The application of this method includes some limits: the difficult identification of replacement knowledge in terms of utility and the ones available on the market as well as the uncertainty that the costs borne for the creation of technology may guarantee the same results.

The value-based approach assesses the future economic benefits that technology can provide to the profitability of a company. While approaching the estimate, however, two problems arise: identification of the flow of expected economic benefits, choice of the rate of updating such benefits and the definition of the life of technology.

The flow of expected economic benefits may derive from future differential profit generated by the difference between economic benefits achieved before the use of new technology and the economic benefits that will be achieved by introduction of the same.

In this way, assessment of technology, carried out through updating of the flows of future benefits, updated at an adequate rate of remuneration for pure capital and risk investment, represents a theoretical value of general exchange, equal and neutral, that satisfies the seller as well as the buyer. The exchange value of the technology is represented in the following formula (Zanda et al., 2005):

$$W_x = \sum_{s=1}^k C_s (1+i)^{-s}$$

where:

$W_x$  is the economic value of technology;

$C_s$  is the flow of competitive benefits or differentials provided by technology to the company in  $k$  number of years;

$i$  is the discount rate of benefit flows that takes into consideration risk and remuneration for pure capital investment.

The value-based approach has been applied by Ferrata (Ferrata, 2007). He estimates the economic value of base research through the insurance related logic, considering some aspects such as the need for new knowledge as indicated by demand, conclusion of basic research of the laboratory problems including in the project, the benefits deriving from the sale of each unit of product following the development of technology. The assessment of basic research can be represented in the following formula (Ferrata, 2007):

$$Y = \sum_{s=1}^k p_i (\Delta R_{i\% - m})_{r\% - t - m}$$

where:

- Y        value of the basic research project with  $k$  as the alternatives of use;
- $k$         markets involved in the research field;
- $P_i$        probability of exceeding the limits that do not allow for the use of knowledge on the market  $i$ ;
- $i$         minimum net incomes, estimated with reference to the market  $i$ ;
- $r\%$       discount rate;
- $m$        estimate of the time necessary to make the project operative on the market  $i$ ;
- $t$         the period of time in which the cash flows generated by the market  $i$  are expected to extend  $i$ .

Another approach suitable to an estimate of the economic value of structural capital is the real option-based approach. This starts with the doctrine (Amram, 1999, Black and Scholes, 1971) that considers it suitable for the assessment of applied research as the method, characterized by rationality, objectivity and neutrality, can enhance the investments characterized by a high level of uncertainty. The real option is set up as an option related to an investment project.

The problems innate in this method refer to the definition of contractual conditions, to be clarified on each occasions, and compliance of the investment with some characteristics: the value of the investment is affected by contingent values, the uncertainty of the investment results in the need for further information; the possibility of making changes to the strategy underway; flexibility of the investment, the entrepreneur may choose several alternative businesses. As the investment adopts several strategies, it has high growth possibilities.

The assessment process includes several types of real options: development real options, connected with "platform investments" for the implementation of other projects; deferment real options, related to the opportunity of postponing the decision related to further investments for a certain period of time; real flexibility options, typical of research projects in which the final objectives can be easily changed. The real options of abandonment provide the executor with the possibility of interrupting the project within a certain period of time, at advantageous conditions, in the hypothesis in which it is no longer convenient in future investment developments.

Existence of the real options can be empirically proved starting with a preference for investments in research with greater liquidity on the market between two investments with the same characteristics.

The approach proposed by Amran and Kulatilaka (1999) articulates the real option model in four phases: definition of the mathematical model according to the characteristics and sources of uncertainty; application of the assessment model of the option (Cox et al., 1979; Black and Scholes, 1972); examination of the results achieved according to the data included in the model; possible

redefinition of the investment according to the re-elaboration of strategies or results that are not in line with expectations of management.

## RESEARCH APPROACH

The research approach is based on the qualitative method (Maylor and Blackmon, 2005; Myers, 2013). Research investigates into the topic of structural capital, emphasizing the role undertaken by the latter in the economy of knowledge. Therefore, special attention is given to the following aspects:

- the notion of structural capital;
- the profiles of management and enhancement of structural capital;
- definition of the correct trade-off between accessibility and protection of company structural capital.

The acquisition of data has been carried out using the single-method approach (Yin, 1994). The sources of research are of a secondary nature and have been selected using the following research:

- 20 scientific articles have been selected related to the topics: “intellectual assets”, “knowledge management”, “structural capital” and “real option”;
- 2 databases have been used, 20 scientific articles have been consulted through the EBSCO database, found through research using the word “intellectual capital”; through Google Scholar 10 scientific articles have been consulted using the keyword structural capital;
- several websites, news and open access journals have been consulted.

## FINDINGS AND DISCUSSIONS

The results of research are born from an analysis of international literature related to structural capital. Structured knowledge stimulates the accumulation of knowledge inside and outside of the organization that has generated it; they may inspire the creation of new technologies (Choen and Levinthal, 1989) and the formulation of new ideas.

Among the aspects investigated, it can be seen that the traditional methods of social capital assessment are not capable of assessing investments into applied research, enhancing opportunities. The high level of uncertainty in the results of investments makes it difficult to estimate the value of technology (starting with costs necessary to create an equivalent technology of use) and to attribute sure profitability or financial flows to the same.

The real options reply to this requirement, even if their main elements (current price, applicable price, method of execution of the option), in the Option Pricing Model, are not easy to identify.



Another element of reflection is the choice between protection or diffusion of knowledge.

The protection of structural capital offers the organisation the achievement of a leading position in the market and the acquisition of adequate economic returns aimed at covering the costs borne for the creation and development of knowledge.

An excessive level of protection of intellectual property limits access to new knowledge, restricting its accumulation process. Breakage of the balance between old knowledge and new knowledge therefore occurs.

The trade-off between accessibility of structured knowledge and its protection does not have just one solution. The very best solution derives from an analysis of structural capital involved in the protection and the ability of the innovator to take hold of the economic benefits created by it (Tan et al., 2007; Maditinos et al., 2011; Kannan, and Aulbur 2004).

The measure in which new knowledge can be imitated by competitors depends on the simplicity with which technology is understood and communicated. This characteristic is a result of the nature of knowledge (tacit or coded) of the team to lead that the innovator enjoys on the market and the life cycle of structural capital.

Correct management of structural capital requires a connection between the life cycle of technology and management of intellectual property. A universal approach may not be sufficient (Chesbrough, 2006).

The forms of protection of intangible goods are not always successful in playing the role of protection. An example of this is represented by the illegal copies of goods or the possibility of developing goods that are similar to those of the innovator.

This situation results in a reduction in earnings of the original manufacturers/inventors of the goods and an increase in costs borne by them for appeals deriving from the violation or presumed violation of intellectual property.

The solutions proposed for limitation of these phenomenon include granting of open source knowledge. The editorial contents of goods, texts, images, videos and software through specific user licenses are shared by several operators, who can use them and make changes freely.

The use of this form of liberalization for products that are difficult to protect is recommended, as the open source concession of structured knowledge results in a reduction of economic returns of the inventors; the manufacturing companies can compensate the economic losses suffered through the sale of complementary products.

However, if the company owns ideas and patents that are not used because they are not functional for the activity carried out, the trade-off between accessibility and the protection of structural capital may

be mitigated through their transfer (including by means of a license) to companies capable of taking advantage of their potentials (Chesbrough, 2006).

Often companies do not use all of the ideas developed and patented. As far as the company system is concerned, these ideas represent a waste of resources. They are demoralizing for the human resources that have created them and may slow down the flow of innovation.

The license or transfer of part of the structural capital unused allows for diffusion of the knowledge developed and the development of new knowledge to companies capable of capturing the potentials (Rappaport, 1986).

At the same time, the company owning the patent may take advantage of the economic benefits of this technology that, otherwise, would have been worthless.

## **CONCLUSIONS, LIMITS AND PERSPECTIVES**

A lot of literature can be attributed to intellectual capital. The companies that take advantage of internal knowledge for the creation of innovation and of efficient and effective production processes guarantee a position of competitive advantage.

Contemporary companies are rich, vital and competitive when they own a high level of intellectual capital.

In this regard, company performance is seen in its entirety, as the range of results achieved, considering the tangible and intangible elements.

This document has introduced an updated conceptualisation of structural capital to the intangible components, with special reference to management and assessment profiles.

With regards to external management of company knowledge, the trade-off between accessibility of structural capital and its protection has been investigated. The protection of structural capital, on the one hand, guarantees remuneration of investments made to the entrepreneurs; on the other hand it favours the emergence of illegal forms of acquisition of knowledge.

On the contrary, the opening of structured knowledge favours the circulation of new knowledge and has active participation in the creation of further knowledge. In this case, all of the organizations benefit from the economic results of the idea, reducing proceeds for the company that invented it. However, this does not represent a disincentive for the inventor company in creating further investments in terms of knowledge, limiting the development and increase of internal company capital.

Contemporary companies tend to favour the correct balance between sharing and protection. In this regard, the achievement of long term stable results is preferred.

The limits of the article include its theoretical form and the fact that the analysis carried out represents an updated conceptualization of literature, found through the research method previously illustrated. Therefore, future research aims at aims at systematizing the main literature on the topic of structural capital with the objective of providing another qualitative analysis.

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## GOVERNANCE, ACCOUNTABILITY AND PARTICIPATORY BUDGET BETWEEN MYTH AND REALITY. THE ITALIAN CASE

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### ABSTRACT

This paper explores the implications of participatory budget (PB) in Italy, inspired by insights and reflections on public governance, accountability, participation and inclusion of citizens in the local authority expenditure decisions. In particular it focuses on the characteristics of the context in which PB has encountered practical implementation, the way by which it is realized, the most common type of intervention and, finally, the criticalities in the units of analysis. The conclusions give way to considerations on actions still required to promote PB, so that it can really be seen as a tool for improving accountability.

**Keywords:** *Public governance, participatory budget, accountability*

### INTRODUCTION

In the last twenty years, the public sector has been characterized by innovative processes and managerial tools with new visions and trends (Hood, 1991; Rhodes 1996; Lapsley, 2008). Among these, a logic of participation and citizens involvement has emerged with the aim of diffusing the adoption of new forms of governance and promoting shared decision making. The need to build a system of *participating mode of citizenship* and *collaborative governance* appears pressing in order to connect policy effects with both expectations and needs of different social groups by discharging accountability (Newman *et al.*, 2004). This is modifying the conventional rules of democracy, in order to encourage participation, dialogue, consensus and various expressions of interests in those contexts traditionally reserved to the policy maker (Lehtonen, 2006).

If the New Public Management (NPM) has revised the role of the citizen by assimilating it to that of a customer in a “marketized” Public Administration, a new emergent vision makes the citizen an active subject in a process in which the citizen’s role is integrated with government and based on a new vision of the accountability paradigm (Hummels, 1998; King *et al.* 1998; Goetz and Jenkins, 2001;

Ackermann, 2004). The same concept of public value, in its evolution, has considered the “co-participation” as key-element to pursue public interest (Moore, 1995). Consequently, the very concept of public governance should benefit from the enrichment deriving from the direct involvement of citizens in public decision-making, thus stimulating the activation of accountability processes in which politicians, managers and citizens are fully involved (Bekke *et al.*, 1995). This represents a starting point for new theorizations as well as *multilevel governance* (Rhodes, 1996; Stoker, 1996; Pierre e Stoker, 2000; Irving and Stansbury, 2004; Soma and Vatn, 2010) or *collaborative governance* (Newman *et al.*, 2004; Fung and Wright, 2001; Fung, 2006).

Among the heterogeneous instruments of the participative democracy, undoubtedly, the PB plays an important role both for the impact exercised on society as a whole and for the involvement of several social groups in the resource allocation process. “At the heart of such initiatives is the right to increase councillors’ decision-making, with more localized citizen involvement in determining resource allocations” (Mitlin, 2004:6).

From a review of the literature it is possible to observe that several experiences in those poor areas of the world where the citizens’ involvement in public decision-making is encountered as an useful support for the construction of a priority scale taking into account political needs, social and economic differences (Eberlei, 2001, 2007). These initiatives have also influenced the most industrialized countries with the adaptation of both methods and instruments to the context requirements, so that it is now possible to discuss how this has come about and what the concrete effects are (Ebdon, 2000; Gaventa, 2004; Lehtonen 2006, Sintomer *et al.*, 2008).

In Italy, an increasing number of municipalities have been implementing participatory budgeting, so this may be considered a good starting point for some interpretative reflections and empirical observations. Coherently, this paper explores the relationship between Local Authorities and citizens’ participation, and aims to answer the following questions: 1) what does mean the PB in the evolutionary forms of public governance?; 2) what are the main benefits and criticalities in the PB implementation in the Italian municipalities?

The first section of the paper is dedicated to the concepts of governance, participative and deliberative democracy. The second section is devoted to the instruments mainly used in the implementation of participatory democracy. The third section focuses on the PB. The fourth section examines the case of some Italian municipalities that have initiated experiences of participatory budgeting. Finally, discussion and conclusions.

## **2. PUBLIC GOVERNANCE, PARTICIPATIVE AND DELIBERATIVE DEMOCRACY**

From the point of view of the public management theory that, over the last two decades, has supported changes in both the organization and structure of the public sector, firstly it is possible to observe the ethical dimension that has focused on the relations and integration between administrators and administered. The reforms have sought to transform the culture of public organizations, which includes encouraging employees to think of citizens as customers to be served instead of clients to be managed (Hood, 1991; Osborne and Gaembler, 1992; Saarelainen, 1999).

NPM has paid excessive attention to the possibility of exercising market control rather than democratic control, thus emphasizing the customer role of citizens and reducing their political role (Hood, 1991, Ferlie et al., 1996, Lapsley, 2008). However, what has taken a non-negligible meaning, together with the key principles of effectiveness, efficiency, responsibility and accountability, is the transparency in the action of the public administration. Transparency, in terms of a strong concept of responsibility, is powerfully rooted in the phenomenon of participatory democracy, and can be reached only by providing highly organized tools and means for citizens' activism in the political process. Transparency is also strongly related to the concept of self-governing, according to which citizens do not have only an impact on the services offered by the public administration but also take part in the production process, firstly as co-decision-makers on "what" and "how" to produce, and secondly as co-producers of the service (Sjöblom 1999:22).

A complementary perspective is provided by the stakeholder theory. It assumes that a company (public or private) has a series of constituent groups depending on the context of the activities in which they operate (Freeman, 1984; Jones and Wicks, 1999). The concept of stakeholders in the public administration assumes a wide meaning compared with private firm, as all the individuals or their social and economic groups are holders of a "stake", which derives from their role in society (Handley and Howell-Moroney, 2010). Stakeholders are not primarily seen as actors who can influence the organization's continuity, but as individuals and groups who have a legitimate claim on the organization to participate in the decision-making process simply because they are affected by the organization's practices, policies and actions (Hummels, 1998:1408). By highlighting the ways for a change through the development of a new administration model based on cooperation, collaboration and integration, this implies an overrun of what is traditionally indicated as a sort of bipolarism that sees citizens and administrators as antagonists. In this regard, the use of the term "co-governance" suggests properly that the borders between state and civil society are vanishing (Goetz and Jenkins, 2001; Ackerman, 2004; Arena, 2006).



In the field of public policy two different paths in this approach are proposed: the method of pressure and the method of comparison (Bobbio, 2002, 2004, 2006). The first, which is related to the expression “participatory democracy”, considers participation as a tool to give a voice to weak social subjects, who are marginalized or traditionally excluded, through social movements or associations. The method of pressure responds to an idea of participatory democracy which is supported by social movements and is reflected in the “participatory budget” experiments carried out in the Latin American countries and, in general, in those countries whose economies are particularly disadvantaged. (Abers, 1998; De Sousa Santos, 1998; Allegretti, 2001; Gret and Sintomer 2002; Harnecker, 2003)

In contrast, the method of comparison, which coincides with deliberative democracy, is based on the assumption that civil society has a pluralist nature. It does mean participation as a comparison of dialogic nature, between citizens which have conflicting ideas, different points of view or opposing interests, in order to draw up common solutions and to find a common ground or, at least, to clarify the terms of the conflict for finding a common ground of action. The relationship is no longer of dualistic type between people and administration, but is rather a multi-voiced dialogue in which the public administration assumes a neutral role and is equal to the other actors (Pellizzoni 2005: 23).

Comparison and co-decision are two crucial moments in validating the deliberative process, which are not longer guided only by elected bodies, but are determined by a majority, built for a specific purpose and therefore, legitimized to choose. The difference between the theory of deliberative democracy and other theories of democracy is consequently locus (Chambers, 2003:308). Deliberative democracy is ‘talk-centric’ not ‘voting-centric’.

The experiences referring to the deliberative democracy theory are based on two essential points: the use of comparison argued and the inclusion of all the interests and points of view that are affected by the social actors. In substance if in the model of participatory democracy the citizens are invited to take part in the debate, by opinions, suggestions and, sometimes, direct claims, in the deliberative model they are directly involved in decision-making process and are able to determine the outcome (Heimans, 2002).

Both models reflect the transition from a traditional view, towards a vision in which the citizens become co-protagonists in the decision-making processes. From a preliminary analysis of studies in the literature of international bodies (World Bank, International Monetary Fund, etc.) on the subject of stakeholder participation in the implementation of the Poverty Reduction Strategy Process (PRS) (Eberlei, 2001, 2007), one can observe a multiple approach in the methods of interaction between politicians and citizens, at the various stages of the political cycle. The degrees of participation, which

are normally considered to be formal, vary and may take the form of the following actions: 1) sharing of information; 2) consultation, 3) joint decision; 4) partnership; 5) control.

Contributions from policy studies (OECD, 2001) consider that engaging citizens in policy making is a core element of good governance, and contributes to building public trust in government, raising the quality of democracy and strengthening civic capacity. Because of its direct interest in the problem at stake, this study deserves a more detailed analysis. The OECD's vision of citizens' involvement encompasses three levels: a) access to information; b) Consultation; c) Active participation.

It acknowledges equal standing for citizens in setting the agenda, proposing policy options and shaping the policy dialogue, although the responsibility for the final decision or policy formulation rests with government" (OECD 2001: 23; Gramberger, 2001).

Accountability represents one of the ten guiding principle proposed by OECD (2001) for engaging citizens with policy making (the other are Commitment, Rights, Clarity, Time, Objectivity, Resources, Co-ordination, Evaluation, Active citizenship).

On the one hand, this marks the abandonment of the conventional interpretations of the public government supported by the concept of power coming from the authority (typical of the traditional public administration) and, on the other hand, it introduces the power of communication as a source of an innovative idea of co-shared administration. This is based essentially on the principles both of "subsidiarity" and "organisational autonomy", since the first legitimates the autonomous citizens' initiative in the alliance with the public administration to solve problems of general interest; the second, in its relational dimension, needs to establish in a pluralist society equal relations between the different areas of interests, both public and private (Arena, 2006: 82; Bourgon 2007).

That assertion allows to sustain a sequential logic, by starting from the concept of co-shared democracy, passing through the phase of participatory democracy or dialogical, and coming to that is commonly reported as the democracy of stakeholders. In this last paradigm, public governance represents the phenomenon to which politicians, citizens and interest groups contribute in an active way. On this innovative concept of governance, accountability and transparency of public action exercise a strong influence (Dwyer, 2005). In fact, accountability does not exercise its strength only in the operational phase of reporting from the decision-maker to the citizen, but it is inevitably a substantial component of reinforcement in the opening behavior that the decision-maker implements, by making citizens sharing the same decisions and putting them in a position to evaluate the effectiveness and the outcome of policies, both *ex ante* (programming ) and *ex post* (control of results). We talk in this way about *social accountability* defined by the World Bank (2005:1) as "an approach towards building accountability that relies on civic engagement, i.e., in which it is ordinary citizens and/or civil society organizations who participate directly or indirectly in exacting accountability".

### 3. PARTICIPATORY BUDGET AS AN INSTRUMENT OF CO-SHARED LOCAL GOVERNANCE

Among the different forms that currently seem develop the paradigm of deliberative democracy, the PB approach, in which interests of the participants intersect and integrate, seems to have reached a certain degree of success, keeping its original features and treating predefined arguments on which decisions have to be made (Gret and Sintomer, 2002; Bobbio, 2002). In this approach, citizens and/or organizations in civil society are actors in the decision-making process together with the representative bodies.

PB allows the citizens of an area (neighbourhood, regeneration or local authority area) to participate in the allocation of part of the local Council's or other statutory agency's (health services, police) available financial resources. PB aims to increase transparency, accountability, understanding and social inclusion in local government affairs. PB applies to a varying amount of the local Council's budget and the actual process is developed to suit local circumstances (PB Tool kit, 2008:4).

PB directly involves local people in making decisions on local spending and priorities for a defined public budget. PB processes can be defined by geographical area (whether that refers to a neighbourhood or to a larger area) or by theme. This means engaging residents and community groups in discussions and voting on spending priorities, making spending proposals, and voting on them, as well as giving local people a role in the scrutiny and monitoring of processes and results, in order to inform subsequent PB decisions.

The legitimacy of the power to manage the common resources of the collectivity derives from the mandate granted by the citizens to the elected representatives. However, in this historic phase, which is characterized by a scarcity of public resources together with the presence of strong social pressures, the complicated and complex system of rules determines conditions that undermine the representative mechanisms. So, it generates a deep split between both consensus and/or political opportunity and the capacity of the public administration to respond to the real needs of the community. The PB as a tool mainly used in areas of the world that are particularly depressed economically are characterized by strong social contrasts, seems to be a solution in western countries to improve the performance of public services and face to the fiscal stress (Ebdon and Franklin, 2006). The main factors inspiring the PB approach in Latin America have reference to: scarcity of resources, fiscal decentralization, need for transparency in policy and resource allocation (Roberto, 1996; Heimans, 2002; Cabannes, 2004; Afonso, 2006). PB is not a document but a pervasive process engaging all those who have an interest in public administration. The reference to local government is frequently mentioned as a cause of the various bottom-up experiences that have been increasing in

many countries. PB does not reverse the roles in local government but creates a synergy in the knowledge of public interest between politicians and citizens.

Many contributions to the literature tend to highlight two different profiles in the PB approach. "The experiences fall between simple consultation with citizens, whereby the executive and legislative branches retain all the power, and deliberative experiences, in which the decisions of PB councilors have real power and are endorsed by the municipal council" (Cabannes, 2004:28; cfr. Heimans, 2002).

The implementation of PB would demonstrate that the democratic and transparent administration of the financial resources is a powerful and very appropriate way to avoid corruption or deviation of the public funds, generating popular public participation.

The first PB experience was launched by the workers' party in 1989 in Porto Alegre, capital of the Brazilian State of Rio Grande do Sul. The workers' aim was to fight serious problems related to power concentration, resource waste, political affairs and corruption. That experience led the way for similar experiences all over the world (Abers, 1998; De Sousa Santos, 1998; Allegretti, 2001; Gret and Sintomer, 2002; Harnecker, 2003). Over 300 Brazilian municipalities adopted PB between 1989 and 2004, and cities in at least 30 other countries also have adopted PB (Wampler and Avritzer, 2006; Cabannes, 2004). The phenomenon has also caught on in Europe, where there are different rules in the various countries because PB does not imply a definition of rules but is a philosophy permeating the process of elaboration. More than 300 municipalities in countries such as Venezuela, Canada, Spain, France and Chile, and the UK have already used PB. In the UK, for example, experiences of PB began to catch on in the cities of Salford and Manchester in 2000. A 2008 report by the PB unit - a project of the charity Church Action (Participatory budgeting in the UK: values, principles & standards, 2008) – claims that 22 pilot projects have led to some form of participatory budget. The objective was to ensure that by 2012 each local authority area should have a PB.

#### *Aspects of the PB Process*

The process of PB generally requires citizens to be engaged in decision-making. It extends the succession of stages of the cycle annual budget formulation and approval which afford investments and projects to be allocated to the emerging local needs. In the participation process for the budget formulation, procedures and activities are not scheduled and, on the basis of indications from the experiences already gained in different countries, it is possible to design a sort of prototype of the process articulation as follows:

- preparation of feasibility studies to support the evaluation of the investments or projects;
- preparation of a proposal in the areas concerning the participatory process;
- monitoring process in the budget approval;
- monitoring in the budget management with specific reference to the priorities;

- monitoring the provision process (competitive tenders, contracting);
- monitoring services provision for the public works.

In these activities it is reasonable to think about the joint attention paid by both public administration and citizens to budget performance.

PB involves citizens and political forces in collaboration, therefore it has the prerogative to include in the resource allocation process those who traditionally are not involved in political decisions. There are really no universal rules about the application of PB. The methodologies may vary depending on the local authority and its requirements. So there are rules which determine the percentage amount of resources to entrust to the citizens' decisions.

Given the citizens' involvement, PB creates opportunities for greater effectiveness in the distribution of public funds and increases social cohesion. According to the advocates of PB, this implies a certain amount of advantages (Heimans, 2002:10) as citizens' empowerment and promotion of public learning; democratization of macroeconomic policy; integration among different social groups; co-shared economic and social growth.

Certainly PB is not a "consolation prize" for citizens but a decision-making instrument that is able to rebuild a relationship of trust between institutions and citizens

at the same time the risks is that "people may view PB as just another bandwagon" while it is a new way of planning and budgeting. Therefore, the risk is that may be a mystification of the participation tool (Wampler and Avritzer, 2006). Other risks are: a potential impact on fiscal discipline of the increased demands on governments through participation; an erosion of the legitimacy of established democratic institutions, such as parliament, in favour of less accountable civil society organizations; an escalation of conflict over resource allocation and distribution among participating social groups; the "capture" of participatory processes by local elites, by the most vocal constituencies or by those with vested interests. In this sense the PB represents a tool for modernising local governance and activating the community to improve the local public services.

#### **4. THE ITALIAN WAY TOWARDS CITIZENS' PARTICIPATION**

As in most European States – according to the OECD report 2009 - also in Italy, in the last few years there has been the introduction of some form of citizen participation, in particular in the local authorities (mostly the Municipalities). There are also experiences that have launched a regional form of participation, by codifying methods and tools. This is the emblematic case of the Tuscany Region, which approved a law in 2007 whose content promotes regional instruments of deliberative democracy (Floridia, 2008; OECD 2009). Other experiments are in progress in other regions (Lazio Region, Emilia-Romagna Region)

In general, the administration of the local authority recalls closely the concepts of participatory democracy and deliberative democracy and particularly the small-size municipalities are more involved than others.

The advent of ITC and the start of e-Governance projects simplify the accessibility to the public administration by the use of web sites ( for example online forums, wikis) and speed up the dialogue between public and institutions. It is the substance of the policies and the immediate tangibility of their effects to involve citizens by pushing them towards forms of organization where they can take an active part in the dialogue and be present in the choices relating to resource allocation.

Further the recent reforms in Italy have introduced new figures of responsibility and have embedded in the public rules principles of efficiency, effectiveness and economy that did not previously feature in any law. This change has strongly contributed to move their culture towards the dissemination of a management logic based on results, at the top of which there is the principle of accountability of the organizational units in the achievement of the objectives.

The new managerial approach has meant a revolution in terms of prevailing strategic objectives, using the human resources as the main source of competitive advantage, in a management process which sees the co-sharing of objectives within the organization and a tendency to continuous improvement.

The challenge of the programming and control (P&C) system consists precisely in its capacity for adaptation and depends upon the elasticity of response to the context of reference. The P&C system, which constitutes a cross-operating system on which the different stages of activities and translation of political intent depend, is thus a fertile ground for allowing citizens participate in decision-making. It enables a cyclical transition from strategy to programming, management and reporting, by providing in each of these steps appropriate monitoring activities and forms of control. So doing programming extends in a horizontal span and is able to predict what will happen at every step.

In this succession forms of interaction between politicians and citizens, public officials and citizens may take place in a traditional way (for example with forms of questioning in municipal councils) or with innovative instruments. The implementation of P&C systems requires not only a certain degree of innovation in the instruments used, but also a change at the organizational level, through the involvement of all the operational units and the coordination of all activities. This implies a redefinition of the strategies and a change of management in a results-oriented logic. In addition, the complexity of the control system impacts on the quality of the external information, by improving the excise of responsibilities and the guarantee of greater transparency that comes from the public (Garlatti e Pezzani, 2000; Hinna, 2004;Pezzani, 2005).

The need to comply with accountability, considered one of the main factors underpinning the path of deliberative democracy, is part of that change in the culture of public administrations which considers

as the aspects of economy as the ethical aspects of management, by opening the way for new reflections on the perspective for improving the performance of the local authority. This is a tool that allows for comparison and the sharing of common objectives, and can be seen also as an instrument for the reduction of potential social conflict. The information function seeks to give account to the citizens of the use of public resources and the accomplishment of strategic objectives. At the same time, it meets the requirements for greater accountability from the internal offices, thus playing a strong motivational role.

In the light of this recent innovation the role and the meaning of PB should be interpreted by considering it as a dynamic process in which politicians, civil servants and citizens are involved. That surely may influence P&C system and the way politicians and public manager discharge accountability. The degree of inclusiveness, the importance of participation in decision-making processes, their extension, the channels of communication and the evaluation mechanisms are unquestionably the keys to a successful PB experience. Further PB may also support the local authority in facing the difficulties and constraints currently present in the system of public finance.

## 5. THE RESEARCH

On the basis of the theoretical conditions highlighted a research has set up by formulating a series of questions that have engaged the development of an empirical survey focused on a set of Italian municipalities that have acquired considerable experience on the participatory budget.

The survey was carried out by paying attention to the selection of municipalities, either well-documented in the literature or for having placed the project details on their own websites. The keyword inserted for their detection was “participatory budget”, assuming that the term in itself requires a continuous relationship with the citizens, so that occurs mainly by using channels such as Internet. The sample is based on only 11 local authorities (provinces capital and municipalities) that between 2009 and 2011 have collaborated with the research team. The first item has aimed to explore the ways in which PB has been implemented and how it was structured. Secondly, we asked “whether” and “to what extent” the PB is able to affect the programming process. Finally, “if” the PB is really able to ensure greater accountability of public decision-makers and managers in respect of citizens’ expectations, and can it ensure a long-term sustainability. That was followed identifying contacts with the responsible units for participatory budget. Subsequently, a questionnaire containing 20 questions was designed with reference to the following modules: characteristics of context; mode of citizens’ involvement; process execution; aims and achievements.

It should be specified that, in Italy, the PB has been implemented, especially in the municipalities located in the central and northern regions since 2000, except for some experience such as

Grottammare (Ascoli Piceno), which started in the early 1990s. In different local contexts, however, the PB was often put out of action or replaced by social reporting, another tool for discharging accountability. This last, while encouraging the citizens' contribution in the phase of countercheck and audit, seems to limit the concrete incisiveness of the citizens' participation. In some cases, the interviewees themselves made it possible to further deepen the experience, especially from the point of view of the setting-up of the PB process, to highlight the differences characterizing the practices of the citizen participation model.

The aim of the research was to find out the tangible benefits of the PB experience and include the stories of participatory democracy within local policies that imply the creation of deliberative arenas, debates and dialogues, by which the representative democracy mechanisms can be innovated. This was also to verify if these experiences really operate for the benefit of the majority of the population and what direction is followed by the PB process in any interviewed municipality.

#### *Findings*

The procedures of the PB are very different and depend on the context where the process is implemented. The experiences are almost all addressed towards progressive experiments that have highlighted the strong points of the PB. These consist mainly in adjusting its rules so that the process can always adapt to the characteristics of individuals, by reestablishing the relationships among the different institutions and groups of the civil society. It is considered a tool of aggregation and permits the abandonment of old forms of policy for guaranteeing a transparent administration in the choices made by local governments. In fact they are different experiences even if, through the networks for the exchange, as in the case of the URBAL program, it is to build a consciousness of mutual benefit (between public administration and civil society). Moreover, in a few years, some experiences are trying to formalize the process, in order to make sure a certain continuity and to develop particular skills in the field but, above all, with aim of practicing more and more a "legitimizing policy", after the electoral vote. In this perspective the PB is used as an instrument putting in relationship the *representative democracy* with some moments of *deliberative democracy*. The observed experiences reveal that the joining element is the location of some fundamental steps in the construction of PB, such as: *emerging needs*, *priority voting* (all participants brainstorm a list of ideas), *verification of feasibility* and *insertion of specific expenses* in the annual budget. In detail, every Municipality interviewed has been trying to adapt the process to the demands and characteristics of the participants and to what the administration would really like to achieve.

#### *Characteristics of context*

Since the municipalities were chosen exclusively on the basis of the indispensable condition that they had completed a PB experience, their characteristics are heterogeneous as regards the number of



inhabitants and the composition of the population. Firstly, the data about PB come from small and medium-sized municipalities (54%) and only 5 (46%) are provincial capitals. The geographical area mostly concerned is North Italy.

Almost all of the municipalities are run by centre-left governments, under which it has been chosen to apply the participatory budgets. Only in two cases (Grottammare and Isola Vicentina), the government is represented by a civic list, composed of individuals not belonging to any political party.

In the majority of cases, the option of introducing the PB has been a political choice, proposal by the Mayor and town counselors, while presenting the electoral program. The Italian case that inspired the PB in most cases (Castel Maggiore, Isola Vicentina, Ivrea, Modena and Vimercate), is Pieve Emanuele (MI), which was one of the first Italian municipalities to implement a participatory process, thus maturing a large experience in this field. Among the international experiences, the inspiring PB case is that of Porto Alegre, as well as those of the Latin America (Bel Horizonte-Capoliveri), with which a relationship of interchange and cooperation, within the European programs, has been initiated

It is important to highlight the role that some municipalities such as Modena, Ivrea and Castel Maggiore have had in spreading the experience. Through seminars and conferences, they have been proposed moments of comparison among local authorities which have activated or would like implement experiences of participative democracy. The aim was to make known, analyze and compare the various experiences, so as to develop cooperation between institutions and improve and disseminate the forms of participation. In some cases, in which a large resonance to the communication was given for empowering participation (for example in Ivrea), the Municipality has joined the work table "URP of URP"<sup>1</sup>, on the topic "communicate the participation", by focusing attention on the aspects of communication in the context where citizens are included in the decision-making process. Through a comparison of analogous experiences there has been an attempt to deepen the role that communication plays in the PB implementation, both in general and in relation to the different phases that characterize the co- shared processes.

In all the cases surveyed the PB path has been formalized as a new management tool by means of specific regulations. This is subjective compared to every experience, but only in two towns attention has been paid to including the PB in the "accounting rules" of the institution. Collaborations with other local authorities have been initiated especially for spreading the experience and for a comparison, but it is not a very common practice (only four municipalities out of 11). In most cases, a special office is activated to manage the PB steps and it's properly called "Participation Office". In the

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<sup>1</sup> URP in Italy is Ufficio Relazioni con il Pubblico, "Public relations Office" in the public administration

other cases it is related to the financial service, or social policies service. Rarely, the PB management is entrusted with the competence of the Communication Office, or of the Financial services.

#### *Rules for citizens' involvement*

The main forms of citizens' involvement for bringing them closer to the public administration choices are questionnaires during the periodical quarter assemblies, the institution of a participation office, posting flyers, the continuous updating of the municipal web site. In particular, in Ivrea a "Suggestions" box was opened, as well as an area on the website for sending proposals, comments and suggestions on how to achieve and improve the process of citizen participation; in Bergamo some citizens were interviewed and small focus groups (with a maximum of ten people) were organized; Reggio Emilia distributed a tabloid newspaper describing the various stages of the process to all families resident in the quarter where the PB was implemented. The instruments used to involve citizens frequently are: the grid of priorities and votes, the operational plan, as an instrument of resources allocation to each project, questionnaires and polls, postcards, modules of proposals.

In the municipalities of Bergamo, Castel Maggiore, Grottammare, Isola Vicentina, Ivrea, Reggio Emilia and Udine the administration has launched training courses for citizens and public officials, to improve the approach to this experience and to ensure the proper conduct of the participatory process. These training sessions are carried out, in particular, during assemblies. In particular, in Udine, initial conferences have been activated to find out more about the experiences of Brazilian city of Santa Maria Rio Grande do Sul, with which Udine has established a cooperation inside the URBAL project. In Ivrea pilot meetings were organized with the trade union representatives and four associations which play an important role in the economic context of the territory in order to discuss the experience of past and on-going participation.

As regards the age groups of the participating population is not very accurate since some of the municipalities have not carried out a monitoring process. On average, it is possible to say that the most involved residents fall into the 45-55 age band. Since this is especially important if one considers that young people, the most important resource to enable the process to really affect a cultural change in programming, is not very present.

#### *Themes and criticalities of the PB process*

In the municipalities of Bergamo, Castel Maggiore, Ivrea and Udine, the participatory process takes place over the whole year, from January to December. In other municipalities, instead, the process is concentrated in the second half of the year, after the formal approval of the budget. The subjects discussed are chosen according to the citizens' preferences and their emerging needs in Grottammare, Isola Vicentina, Ivrea, Reggio Emilia and Udine. Instead in Bergamo, Castel Maggiore, Cinisello Balsamo, Modena and Vimercate the themes that will be discussed on assembly and among those in

which will vote the proposals, shall be selected by the mayor and by the Municipal Council, and are more the themes of culture and leisure, public works and environment. In the Municipality of Trento the themes are chosen by a committee, formed by the mayor, three assessors and by the representatives of constituencies. On the one hand, this choice is made to avoid the citizens' proposals going beyond both the competences and resources of the administration, but on the other hand it may be so restrictive that it discourages the public from proposing measures to implement. For that reason, even if the proposals are not present in the predefined areas of intervention and therefore they cannot be discussed in this occasion, a list of them will still be reported to the competent bodies. Generally to assign predefined themes for addressing participation offers a clear point of reference and reassures the citizenship, above all in the preliminary approach to PB.

In Castel Maggiore there are two types of assemblies: public assemblies, open to all, and thematic assemblies, reserved for associations and organisations in the area, concerning education, the regional economy, the nonprofit sector, the area of production and commerce, trade organizations and unions. Also the number of assemblies carried out is rather variable but in any event, beyond the assemblies for listing the emerging needs, other assemblies are made to get a feedback information about what the administration has actually done for implementing feasible actions.

In the quarters of Ivrea, Isola Vicentina and Modena the costs linked to the PB procedure were attributed to a specific item inherent respectively to services for the participation. In all the other experiences analyzed, specific items and relative costs are divided according to department, with the other items of the various sectors concerned.

In Modena the proposals emerging from the assemblies are subject to an examination by means of tables of territorial comparison, so the administration may assess the financial and technical feasibility. In Reggio Emilia, as well as in Grottammare, the evaluation is entrusted in the technical work tables, involving all competent leaders in the field, the project team, the representatives of each quarter and the citizens' delegates appointed during the meetings. The work table shall submit to control the proposals on the basis of two factors, the technical and legal feasibility and the compatibility of the acts already adopted; finally, estimates costs and time of implementation.

The area of co-decision on which major projects were achieved, as in most of the experience examined, is that of Culture and leisure (73%); immediately after Public Works (64%), Welfare (64%), Environment (55%), Safety (37%) Mobility (37%). This shows how the PB may be used for investment in infrastructure even if it requires at the same time a great capacity for alternatives selection that often the respondents/participants do not have. As a result, with reference to these areas the BP represents a test bench of legitimization and a guide in the choices that the political bodies have to translate in action.<sup>¶</sup>

With reference to the PB investigated, firstly it emerged the need to clarify what the areas of competence were with reference to the proposed measures, mistakenly charged to other institutions. Contextually politicians (and their delegates) had to dissolve the initial mistrust, by launching issues and stimulating participation. In fact in the most recent experience, several obstacles depend on the difficulties encountered to explain how the PB proposals have to be submitted, where these are required. Often this does not lead to a successful path, because who is confused in the face of topics and issues that require specific skills, in addition to the common civic sense, tends to abandon the assembly of PB.

Secondly, there are some communication difficulties due also to the gap between citizens and administrations which often are not able to get people involved in participation.

For example in the municipality of Isola Vicentina, the project of BP was used as a tool to build a scenario on the future of the town, by defining a comprehensive a long run plan in which the actions indicated by citizens in assemblies were consistent with the project, in order to save resources and to maximize the social utility. The PB experience has not been successful and the citizenship has not seen the implementation of those projects as compared to the initial forecasts.

In the town of Modena instead the assemblies have been spread in a non-homogeneous manner, without continuity and in this case, emphasis was placed on the low quality of the proposals that were viewed as a sort of “shopping list”. Consequently, in 2008, the PB was suspended because of problems in the constituencies, from both political and organizational points of view. The principal obstacle seems to be derived from the representative bodies that have seen in PB a sort of field invasion, that is an obstacle in the regular flow of the decision-making process. Without abandoning the way to participation, that is always seen as an opportunity, the administrators tried to address the technical difficulties deriving from the non-inclusion of PB in the procedures of the municipality and chosen to give priority to targeted interventions. From 2010 onwards is in fact proposed a new path focused on municipal areas that tries to involve those social groups, in particular young people and migrants, which traditionally have been very active in public life. The process hesitate in the detection and selection of projects considered to be worthy and compatible with their inclusion in the programming documents to be translated into financial expenses in annual budget. Among the cases analyzed, just two experiences have been completely abandoned (Cinisello Balsamo and Isola Vicentina)

## 6. CONCLUSIONS

If from the theoretical point of view the BP gets its justification in the development of democratic dynamic and represents the most allusive procedure of deliberative democracy, from the operative

point of view the PB approach represents a method to joint to P&C system. Its performance depends on the tenacity and the conviction by which it is implemented and, especially, on the impact that may have internally and externally. Unlike management tools that are only recently introduced into the culture of the local government, the BP imposes itself as a path to have a multifunctional impact, acting in several directions. First of all, it acts on the political level and consequently on both the economic-financial and management levels. From a political perspective the PB gives its greater contribution to enable the decisions on investment policy in the territory and on themes of common interest where the citizens' preferences are mediated by the policy capacity of government, the involvement of political bodies and the reaction of the public personnel responsible for the coordination of all activities related to the PB process.

This may create a strong strategic value to advantage of the investment planning and in particular, of the annual budget operation. At the economic and financial level the PB enables citizens to take part in the resources allocation process, although in most cases it reserves to citizens only a residual investment quota, or even anchored to a so specific investment, that the procedure doesn't appear convincing and convenient compared to the arising overheads costs. In this regard, the participation, by its very nature, affects only investment expenses for the benefit of the entire community (i.e. public works etc.). Besides, it would be questionable to imagine that co-decisions may relate to the resources allocation regarding the current expenditure. In such a way the PB becomes an instrument for ensuring significance to the financial management of the investments, according to the principles of transparency, efficiency and effectiveness.

From the organizational and management perspective the process has repercussions both inside and outside the institution. Internally, the PB is an instrument for innovation that primarily affects the economic-financial area and communications. Both areas should coordinate for the execution of the operations of citizens' involvement and document completion, bringing it up only in the last phase of approval by political body. This requires the deployment of a set of skills that are able to support the high flow of information generated and the interaction of the main players in the various phases of participation. No activation of a proper process may involve the approach's failure. It's no accident that successful PB experiences are largely the result of a path undertaken by small municipalities, which are intrinsically facilitated by many more relationships rooted in the social fabric than larger municipalities have, because, in this last case the plurality of interests makes cohesion more difficult to reach. In the municipalities with a greater population density, not infrequently the PB process takes place by a territory partitioning in quarters or districts and its coordination often involves just a few parts of the city. In general, in order that BP can play a key role, it must not be a simple consultation, but a true voluntary process of opening from the administrative apparatus to participation, by sharing

of decision-making process and control by the citizens with their direct involvement in public choice and with the activation of the necessary flow of information needed to make participants aware of choices taken. Only by this way the PB may be an effective instrument of deliberative democracy and a strengthening of the programming process getting a positive impact on governance. The experimentation of PB in different Italian local governments not only showed an important educational content and a capacity to mobilize resources by spreading the concept of active citizenship through a more dynamic vision of democracy and its effects, but it has also helped to improve the transparency of the process, by stimulating a greater awareness of the concept of accountability of political bodies and managers. It has also permitted to those administrations that have dared to risk in this opening to control and direct involvement of citizens in our own, the construction of social pacts, inclusive of most vulnerable members of citizenship, and the growth of political consensus. In this sense, the PB represents an instrument of consensual strategic choices, supported by a co-sharing of difficulties, expectations, objectives and benefits, in the medium and long term. The implementation of PB is not the construction of a instrumental model but arises as the construction of a relational model able to simplify the choices and the tasks of public decision-makers, with the involvement of the users of these choices.

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**TITLE: IMPACT FINANCING FOR IMPACT ENTREPRENEURSHIP****Saltini, Tommaso**

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**ABSTRACT**

The research aims at understanding how policy makers and public institutions can interact with different investors' categories in order to design regulations and innovative investments funds. The scope of these instruments is to encourage impact entrepreneurs to start up sustainable businesses focused on finding solutions in order to face needs and problems affecting society.

The paper proposes a phased consequential plan, summing up priorities to be carried out by policy makers in order to catalyze impact capital for impact entrepreneurship. The plan presents consequential activities to be implemented by policy makers, instruments to set in place and actors to get involved. Different structures of impact capital funds, designed to catalyze both private and public capital, are also presented. Public capital can be crucial to encourage and catalyse both local and international investors as well as to bring in technical and financial expertise. Setting up public-private funds, both as co-investors and as guarantor, the public actor acts as a catalyst for first-time impact capital investors, creating the conditions and confidence for subsequent operations through demonstration effects.

Overall, the paper identifies key issues and instruments in order to pursue both social impact and financial results, thereby fostering a comprehensive development. Furthermore, the paper brings out the fact there is a growing set of investors categories and entrepreneurs that are willing and able to create both social and financial value.

**Keywords:** *Entrepreneurship, Impact Capital, Venture Capital, Venture Philanthropy, Sustainable Development, Policy maker.*

**INTRODUCTION AND LITERATURE REVIEW**

This research aims at understanding how policy makers and public institutions can interact with traditional investors in order to design regulations and innovative investments funds. The scope of these instruments is to encourage impact entrepreneurs to start up sustainable businesses focused on finding solutions in order to face needs and problems affecting society.

According to the most recent literature, impact investing has the potential to unlock significant sums of private investment capital to complement public resources and philanthropy in addressing global challenges (Bugg-Levine A., 2013; Clark C., Emerson J., Thornley B, 2013; Clark C., Kleissner L., 2013, Johnson K., Lee H., 2013; Saltuk Y., 2011; JP Morgan Report, 2010). Studies and reports published by The Global Impact Investing Network have been taken into consideration as well ([www.thegiin.org](http://www.thegiin.org)). Impact investments are identified as investments made into companies, organizations, and funds with the intention of generating social and environmental impact alongside a financial return (Saltuk Y., Bouri A., Mudaliar A., Pease M., 2013; O'Donohoe N., Leijonhufvud C., Saltuk Y. 2010; Bugg-Levine A., Emerson J. 2011, Rangan V.K., Appleby S., Moon L. 2011). Both public capital and private capital converge in impact investing as well as venture philanthropy organizations are doing (Kohn H., Karamchandani A., Katz R., 2012, Thornley B., Wood D., Grace K., Sullivant S. 2011). Venture philanthropy organizations are also innovating their approach to investing in both profit and non-profit entities, providing them with both financial and nonfinancial support in order to increase their societal impact (EVPA Publication 2012). Nowadays, the venture philanthropy approach includes the use of the entire spectrum of financing instruments (grants, equity, debt, etc.) and pays particular attention to the ultimate objective of achieving societal impact (OECD Development Centre, 2014; Balbo L, Mortell D, Ostlander P, 2008; Cummings Metz A., Hehenberger L., 2010). Impact investments are carried out mainly by impact capital funds, but both venture philanthropy organizations and profit driven venture capital are increasingly committed to investments focused on social and environmental impact (Saltuk Y. 2011; Richter K. H., 2011). Impact capital funds are operating with the same technical features of venture capital ones, providing professional equity co-invested with the entrepreneur to fund an early stage venture, and providing seed or start-up financing (Black B., Gilson R., 1998; Bygrave W.D., Timmons J.A. 1992). The key characteristics of venture philanthropy funds as well as venture capital and impact capital funds are high engagement, tailored financing, multi-year support, non-financial support, involvement of networks, organizational capacity building and performance measurement (Buckland L., Hehenberger L., Hay M., 2013; Grossman A., Appleby S., Reimers C., 2013). Venture philanthropy, impact capital and venture capital funds differ in terms of priority given to social return and financial return. While venture capital funds are exclusively focused on financial return, impact capital funds are committed to impact investments (Credit Suisse, 2012; Morino M., 2012). These investments may generate a financial return, but the societal impact comes first. It is a so-called impact first strategy. Grant funding carried out by venture philanthropy funds, on the other hand, involves the provision of non-repayable donations to the social purpose organization supported. This is the case of an impact only strategy (Grossman A., Appleby S., Reimers

C., 2013; Credit Suisse and the Schwab Foundation for Social Entrepreneurship, 2012; Godeke S., Pomares R., 2009).

Literature related to venture capital industry development has also been taken into consideration (Black and Gilson, 1998; Gompers P., Lerner J., 1998, 1999; Gilson 2003; Landstroem H, 2007). Furthermore, the paper is carried out based on potential lessons learned from other countries in setting up venture capital instruments focused on developing a specific region or industry [Israel (Avnimelech 2008; Avnimelech and Teubal 2003; 2004a; 2004b;), Germany (Becker and Hellmann 2005), Italy (Finlombarda 2002, 2003)] drawing important conclusions for emerging countries. Previous work has stressed the importance of a proper policy framework and supporting programs for fostering venture capital industry development (Avnimelech 2008; OECD 2000; 2004; 2006; Saltini 2006; 2013). However, this paper does not address the literature and the theoretical papers dealing with the venture capital industry but focuses instead on the interrelation that exists with the impact investing prospective. The results and contribution offered are strongly driven from the empirical analyses carried out in the selected countries of the Mediterranean Region and Europe.

## **METHODOLOGY AND OBJECTIVES**

The considerations reported are based on the experience of special funds set up in a number of countries putting together both public and private resources. Information has been collected also looking at European investments funds investing in the Mediterranean region, i.e., countries around the Mediterranean Sea with the inclusion of Jordan. Moreover, empirical country analyses have been carried out in the following countries: Egypt, Jordan, Tunisia, Palestine, and Israel. Five junior researchers spent time over three years (November 2006, February 2010) along with a senior researcher (from 2006 until 2013) meeting key stakeholders, grouped in the three main categories: investors and fund managers; entrepreneurs and industry associations; and officers of public institutions and international organizations.

The empirical research was supported and carried out in collaboration with the United Nations Industrial Development Organization (UNIDO) field offices in Cairo, Tunis and Amman and from the headquarter based in Vienna. Empirical analysis was also carried out in the Lombardy Region of Italy, interacting particularly with policy makers, investors and philanthropists.

The following categories of actors were interviewed and proposals drawn with their support: regional investors, incubators, accelerators and technology parks, entrepreneurs from investee companies, investors, philanthropists, officers from public institutions and international organizations (multilateral organizations for development – MODs, development financial institutions DFIs). International regional conferences in Dubai, London, Bethlehem, Tel Aviv, Amman and Milan, in the

period 2006-2010, were also attended and proved to be useful for collecting significant information, and data and feedback from stakeholders.

Country empirical analyses have also been carried out spending long periods in the field researching in close cooperation and getting engaged with local and international stakeholders networks (Saltini 2006; 2009a; 2009b; 2010; 2013).

The first objective of this paper is to summarize, proposing a phased consequential plan, priorities to be carried out by policy makers in order to catalyze impact capital for impact entrepreneurship. The plan presents consequential activities to be implemented by policy makers, instruments to set in place and actors to get involved.

The second objective is to outline different structures of impact capital funds that aim at leveraging resources from different partners, investing both private and public capital. Consistently, the paper aims at drawing policy-makers attention to the emerging markets of the Mediterranean region as well sharing practical input to plan potential cross-border initiatives. Priorities and fund structures outlined have been developed using case studies, literature reviews and empirical analyses carried out at country level in the Mediterranean region.

The paper underlines the importance of coordination among different stakeholders to set up the right policy to create preliminary conditions for launching innovative financial instruments and investment models for sound and sustainable development affecting positively environment and society. Several impact capital actors' categories need to act simultaneously in setting up innovative funds willing and able to ensure a positive and effective impact.

Considerable research remains to be done on impact investing policy and on practical investment schemes that can be set up, also with governments' contributions, to catalyze impact investors.

## **A PLAN FOR POLICY MAKERS TO FOSTER IMPACT INVESTING**

Governments setting proper policies play a crucial role for directing potential investors (public national and multilateral institutions, investment funds, foundations, individuals) into investments which have a social and environmental impact. The role a government chooses to play may be as a direct participant as co-investors in the market, or influencing through regulations (Thornley B., Wood D., Grace K., Sullivant S. 2011).

Policy makers must play an important role to ensure impact financing for impact entrepreneurship. A complete set of policies must be set in place geared toward the local and regional conditions that continuously enable the following of changes in circumstances and market evolution (Gompers P., Lerner J., 1998, 1999, 2001). Programs should focus on confronting specific country system failures and

aim at leveraging positive conditions present in the local context. A critical factor is policy makers' capabilities that should be able to set priorities and translate them into programs and policies. Hence assembling skilled teams of policy makers, academic experts, and specialized professionals, is mandatory in order to design the appropriate policy to catalyse impact financing (Rangan V.K., Appleby S., Moon L. (2011). To create a venture capital industry significant efforts and coordination among different actors are required (Gilson R.2003). As learned from empirical analyses, two critical factors must drive policy maker attention: long-term timing and strategic markets development. Policies that support impact investing aim at creating investment ecosystems with a long-term prospective. Public resources must be committed to develop strategic markets and industrial sectors, so leading other sources of private capital, coming spontaneously while protected by policy objective.

Policy makers must pay attention to allow preliminary conditions to emerge in order to catalyse impact capital investors and afterwards they must design regulations and invest public resources to start up and foster the beginning phase. Past successful experiences, and failures of European and American policy makers attempting to set up the venture capital funds to foster high-tech industry during the 80s and 90s, help to understand how important it is to create a positive environment (Becker R., Hellmann T., 2005; Florida R. and Smith D.F., 1993).

The design of a comprehensive policy framework represents a key issue for setting up a new impact capital industry, particularly for countries where social problems are spreading and where political turmoil is a threat. Empirical analyses carried out in the Mediterranean region confirm the importance of the government role to design good policy (Saltini 2006, 2009a, 2009b, 2010).

The Israeli and some European country experiences, both successful and unsuccessful, also support this evidence (Avnimelech 2008; Avnimelech and Teubal 2004a, 2004b; Finlombarda 2002, 2003; OECD 2000, 2004, 2006).

A phased plan is here proposed to foster impact investing for impact entrepreneurship, particularly in emerging markets. Key players (such as government bodies, development financial institutions, multilateral development organizations, universities, R&D centres, multinational enterprises, philanthropic funds and NGOs as well as private investors) need to act simultaneously in setting up special programs and policies to encourage the emergence of impact capital funds aiming at improving economic development ensuring positive impact on society.

A long-term economic development strategy should be adopted in order to phase the emergence, the beginning and the development of the impact capital industry in a specific region or country. Governments play a special role throughout the three-phased approach proposed. The policy makers can either influence impact capital development or play a direct role directing capital and participating with different level of involvement in setting up supporting programs and impact funds.

Governments along with universities and, in emerging markets as well, multilateral organizations for development and NGOs, have a significant role in pursuing the preliminary objectives of the emergence phase. Economic stability, reached through a sound investments policy framework, is a key factor to catalyse investors. However, impact capital, both from the investors and entrepreneurs side, is a people-intensive business. Technical assistance is crucial, improving training offer and cultural awareness, and is a way to contribute to the development of impact business models (Bugg-Levine A., 2013). Conditions to generate impact and make a contribution are always to be able to learn, as well as investment passion and creativity in solving problems. In this phase, it is important to improve the ability to take the initiative, and to foster the desire, particularly in the young generations, to do business to find effective solutions.

To pursue and reach economic sustainability it is necessary to move away from the logic of exploitation and short-term financial speculation. It is necessary to create new financial entities that work with new spirit to develop long-term strategies, creating value innovating products and optimizing production through process innovations.

In the beginning phase, the first objective is to support impact entrepreneurs to design and validate business models (Kohn H., Karamchandani A., Katz R., 2012). Extremely challenging but particularly relevant in emerging markets is to focus upon supporting R&D activities, the enhancement of innovation capabilities, and the stimulation of entrepreneurship culture. Therefore, governments should commit resources to enhance R&D programs and projects, in order to create new products and services for launching innovative impact businesses and for innovating traditional industries as well. A second objective must be to design policies directing capital more toward impact opportunities (Thornley B., Wood D., Grace K., Sullivan S. 2011). This can happen by launching supporting programs and pilot funds, coordinating public and private capital, invested with the principal aim of generating other impact funds. In this phase, key actors are the impact investors, both impact first and financial first investors (Monitor Institute, 2009; Richter K. H., 2011). Coordinating actors and integrating the different investing instruments is also crucial to ensure long-term sustainability for both impact entrepreneurs and impact funds investing in small and growing businesses.

In the development and consolidation phase it is important to launch a different typology of impact funds and to elaborate policy to foster their stability and capacity to implement long-term investment strategies. Attention must be paid to assure both social and financial return and to design a methodology to measure them. The design of proper development policies can increase the amount of impact capital. Policies dealing with investments rules and policies that provide co-investment increase the supply of impact investing capital by catalysing private investors, through risk sharing with governments (Kohler J, Kreiner T, Sawhney J, 2011). When an equity investor is investing in

small risky businesses, the involvement in the business development process of capacity development organizations, such as NGOs, MODs, DFIs or any other technical assistance organizations with specific industry expertise, is also appreciated.

In order to improve the exit opportunities for investors, policy makers must regulate properly also the merger and acquisitions market, in particular by improving transparency and financial information credibility (Hill K. 2007).

During the consolidation phase crises can arise. In this case, priority should be given to assuring a minimum level of activity in start-ups, targeting innovation. During critical times government involvement and forms of direct financial support can be a determining factor in the industry's survival and therefore help to overcome the crisis and reach a stronger consolidation status (Gilson R. 2003; Karaomerlioglu D.C., Jacobsson S. 2000).

PHASE 1 – EMERGENCE			
Objectives	Activities	Actors involved	Instruments
Good Governance and Economic Stability	Ensuring economic stability, setting up investment regulations, labour and contract laws, taxes, regulations, intellectual property system, and policy for innovation.	Governments	Policy framework
Human Capital	Promoting entrepreneurial culture and increasing awareness of innovative financial instruments for impact. Fostering passion and creativity in solving problems. The educational system needs to be improved and the linkage tightened between research and industry.	Governments, Universities, MODs, NGOs.	Trainings, courses, Scholarships, Executive Programs.
Capacity Building	Facilitating understanding about the value of looking for “impact” as entrepreneurs and as investors. Campaigns and training to stimulate awareness and demand for impact. Networking to share success stories and failures.	Governments Universities Students Entrepreneurs Investors	Summer Schools, trainings, courses Research and publications. Events.
PHASE 2 – BEGINNING			

Objectives	Activities	Actors involved	Instruments
Design and Validate Business Model	<p>Designing and setting up training and coaching to turn business ideas into business models, business models into business plans.</p> <p>Subsidize supporting programs to get civil society stakeholders involved.</p> <p>Improving programs and projects to create a suitable environment for R&amp;D, innovation and technology applied to impact business model and in traditional sectors as well.</p> <p>Grant programs for impact start-ups.</p> <p>Promoting business incubator and tech park for impact.</p>	<p>Governments, Impact Entrepreneurs</p> <p>NGOs</p> <p>Business Angels</p> <p>MODs</p>	<p>Grants</p> <p>Supporting programs, Mentoring programs, Incubator, Tech park.</p>
Directing Capital	<p>Subsidize supporting programs investing public resources</p> <p>Co-investments.</p> <p>Supporting programs financed by public and private capital with the ultimate goal of fostering focus on impact.</p> <p>Introducing tax relief to support impact investors and technology transfer for impact business model.</p> <p>Improving regulations to better frame funds structures and operations.</p> <p>Setting up impact funds coordinating government direct participation and private capital.</p> <p>Setting up special funds as pilot initiatives to develop strategic markets and industries.</p>	<p>Governments, Venture Philanthropy Org., Foundations, Individuals, DFIs.</p>	<p>Supporting Programs, Guarantees, Tax Incentives, Pilot IMPACT FUNDS</p>
Networking and Coordination	<p>Improving investors' attitude and mind-set toward impact investing.</p> <p>Foster networking and partnerships among private and public actors in order to widen spectrum of exits.</p>	<p>Governments, Impact Entrepreneurs, Impact</p>	<p>National and Promotional impact actors committees</p>



	Supporting the establishment of a national impact investors/actors association. Bridging the gap between investors and entrepreneurs.  Encourage investors and managers to be committed to impact capital mission and values.  Promote good practices to catalyse national and international impact investors.	investors,  Ind.  Associations  DFIs, MODs.	Roundtables  Conferences
<b>PHASE 3 – DEVELOPMENT &amp; CONSOLIDATION</b>			
<b>Objectives</b>	<b>Activities</b>	<b>Actors involved</b>	<b>Instruments</b>
Social Return & Financial Return	Promoting multiple use of investing instruments.  Consolidate and enrich policy framework increasing the number of public and private co-investment funds.  Promote good practices to catalyse national and international impact investors.  Scale impact funds scheme of success.  Scale impact business model of success.  Assisting target companies to improve internal capacities and offering managers and entrepreneurs strategic advice to ensure both social and financial impact.	Impact  Entrepreneurs,  Local and international  impact  investors.	IMPACT FUNDS  (soft loan, quasi-equity, equity)
M&A Market	Creating the emergence of conditions for alternative exit opportunities for impact investors, supporting consolidation and facilitating M&A operations.  Improving transparency of market information and financial information credibility.	Governments,  Investors  Networks,  Industry  Associations.	Regulations  Information  Sharing  Corporate  Governance

Source: own elaboration

DFIs – Development Financial Institutions

MODs – Multilateral Organizations for

Development

MNEs – Multinational Enterprises

NGOs – Non-Governmental Organizations

The overall objective of the proposed **phased plan for policy makers to foster impact capital for impact entrepreneurship** is to improve access to financial resources and catalyse impact financing. Impact entrepreneurs must be supported to get access to grants as well to debt and equity instruments. They must also be helped to understand if and when they need capital, as well as to understand terms for transition from one form of source of financing to another.

What appears to be crucial is that policies and programs should not create dependence on aid and grants, from private philanthropy and government programs. In the long term, any business, whether social or profit focused, should be scaled and provide returns to its investors.

## IMPACT FUNDS, BETWEEN PUBLIC AND PRIVATE

Government institutions, along with development financial institutions, multilateral development organizations and NGOs, can facilitate the setting up of innovative impact capital funds, with participation by both private and public capital. These funds are the key instruments of the development phase of the proposed plan for policy makers. However, actors' awareness must be pursued during the emergence phase. Different actors must be brought together in order to design common strategies, draft regulations and commit resources.

Impact capital funds, leveraging public and private capital, must be launched during the beginning phase. Impact funds, which leverage public and private resources and know-how, must have a well-focused mission to invest in industries that are crucial for the country's development and should also be geared to develop depressed strategic sectors. These instruments thus have the final goal of setting up new companies and supporting growth of micro-small enterprises operating in underdeveloped regions. Different funds should be set up according to geography, industry, human capital group (youth, women, etc.), and country priorities (Kohler J, Kreiner T, Sawhney J, 2011; Godeke S., Pomares R., 2009). Therefore, public capital can be crucial to encourage and catalyse both local and international investors as well as to bring in technical and financial expertise. Public actors can reduce the risk of investing for impact, not only in depressed regions and in rational industries with steady growth, but also in the beginning phase of the impact industry development. This phase is still characterized by an incomplete policy framework and by the absence of certain investors' categories, actors' know-how and financial instruments in the market. The public actor acts as a catalyst for first-time impact capital investors, creating the conditions and confidence for subsequent operations through demonstration effects (Bouri A., Mudaliar A., GIIN, 2013). Public involvement to foster the development of a new

impact capital industry is desired but it is important to recall that the government as facilitator and investor should have the ultimate goal of creating self-sustainable markets rather than creating conditions for dependency. After target goal achievement, public actors are expected to timely remove their presence. Pressuring governments to take action as facilitators and investors also presents considerable risk, as this involvement could become too intrusive, thereby stifling real development. Risk of distortions is high and must be avoided. With particular reference to experiences analyzed in Israel, Italy, Germany and Turkey (EIF 2011; Avnimelech G., M. Teubal 2003; Finlombarda 2002, 2003; Becker R., Hellmann T., 2005) as well as with reference to the empirical analysis carried out in the Mediterranean region, funds schemes are proposed to be developed by mutual involvement of public and private players. Funds structures proposed should be properly adapted to address country and region specific weaknesses and challenges.

#### *Public-private, fund of funds*

A fund of funds can be set up as a national, international, and public-private partnership. A fund of funds is considered in this paper as a co-investor in other impact capital funds. The fund may also use part of the capital allotment to directly invest and co-invest in enterprises (Ramsinghani M., 2011; Strachman D. A., 2009; Bygrave W.D., Timmons J.A., 1992).

Public-private fund of funds is a financial tool that has been used with good incisiveness in several developed countries, to support venture capital funds focused on seed and early investment stages. The fund structure proposed refer to Yozma Fund in Israel, to ERP-EIF Dachfonds and LfA-EIF Facility in Germany, and iVCi in Turkey. (EIF 2011; Avnimelech, G., M. Teubal, 2004, and Israel Venture Association, [www.iva.co.il](http://www.iva.co.il)).

A fund of funds is based on an agreement signed by parties that commit capital to invest in venture capital whose target is strictly related to the principles and priorities jointly indicated by the investors involved. Public-private fund of funds represent a good instrument to make use of public resources due to its multiplying positive effect of mobilizing and directing private funds to priority areas and strategic industries. This instrument is particularly useful to boost impact funds to invest in start ups and to help scaling business model with impact. A fund of funds structure is attractive to institutional investors, as it creates a portfolio approach that spreads the investment risk. The fund of funds approach also enables the government to support the growth of the key market and industry without

distorting or competing with other investors categories active in the country.

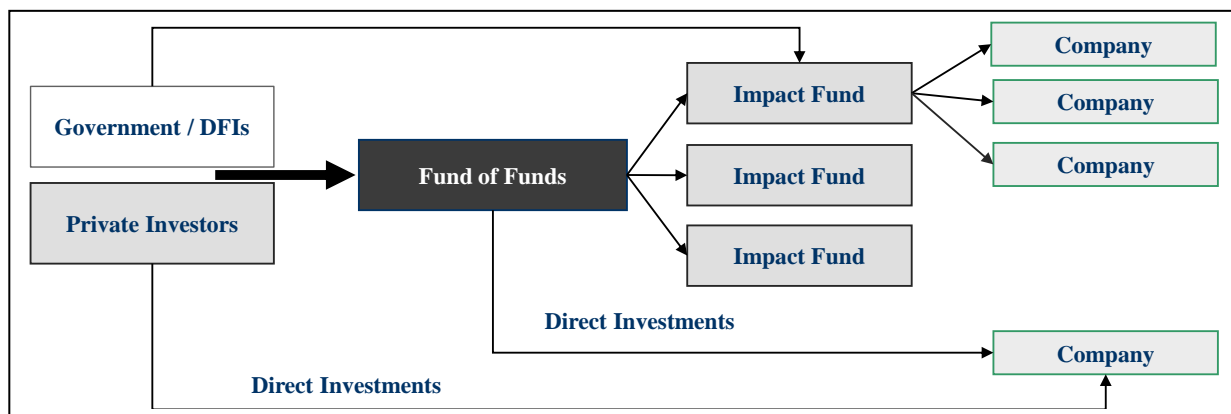


Figure 2. Public private, fund of funds.

Public actors involved such as the ministry of industry, universities, research institutions, etc.) co-invest in private initiatives. The public actor in charge underwrites shares of fund of funds' capital (share A) together with public and private institutional investors (share B).

The fund regulations establish ex ante that the public actor in charge underwrites shares of the fund that have different rights than the shares underwritten by institutional investors and by other private investors that invest in daughter funds in which the fund of funds co-invests. Shares A have a limitation on the maximum return in terms of IRR (Internal Rate of Return).

A development financial institution can also act as co-investor in a fund of funds instead of the government and thereby represents the public interest in the partnership.

#### *Capital guaranteed impact fund*

A capital guaranteed impact fund is an equity fund set up for raising private capital through a management company, whereby the capital is guaranteed by a public entity (ministry, central bank, development agencies in case of emerging markets and development countries, etc.).

The guarantor works adjacent to an impact fund, encouraging private investors investing either in other impact funds with a regional or industry focus or investing directly in impact enterprises, reducing the risk of losing the invested capital. The fund is managed by independent qualified managers and financed with private capital. The investments are guaranteed by a public entity, which has as its objective the increasing development of new, promising micro and small impact enterprises and strategic industries.

The fund firms and their managers are requested to follow specific guidelines dictated by the governments or related public institutions. So, the funds are provided to foster all those sector and economic activities that are considered priority objectives.

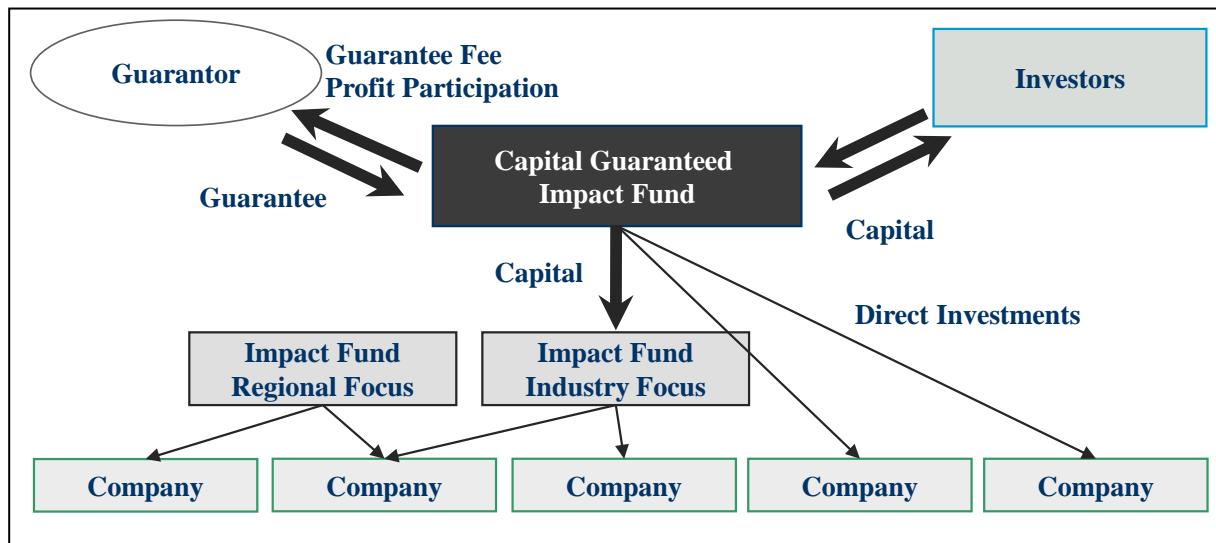


Figure 3. *Capital guaranteed impact fund.*

The impact fund is guaranteed by a governmental institution (guarantor) committing itself to repurchase a percentage of the participation (net of dividends) if the value of the latter, after a certain period of time (7-10 years) is evaluated lower than the original investment on the basis of predefined mechanisms. Acting as guarantor, the public actor can foster sustainable development without an immediate disbursement. The public actor will receive a guarantee fee from the fund and it will benefit from profit sharing. Furthermore, it will play an active role appointing some board members and exercising a veto right for investments exceeding a pre-established amount. Reducing the risk to invest on small business model focus on impact solutions, the guarantor spurs investors and so catalyzes local and foreign capital resources.

#### *Three partners impact fund*

The proposed scheme should be consist of three partners: government or international public institution such as a regional development financial institution, private investors and multilateral development organizations or non-governmental organizations. The use of a three partners impact fund is a recommended structure for developing countries with high risk factors and where the financial system is weak.

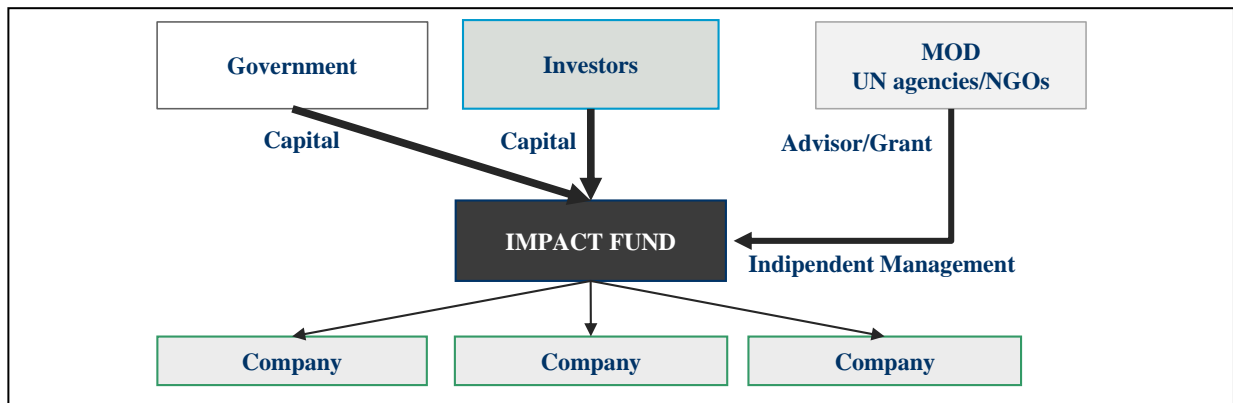


Figure 4. Public private, fund of funds.

In the proposed scheme, government plays an active role as investor and in controlling the impact capital fund. Nevertheless, an independent and reputable management team must run the fund. Management is the key factor for any successful venture capital firm and particularly for an initiative driven by public money (Bygrave W.D., Timmons J.A., 1992; Gompers P., Lerner J., 1998).

A crucial role in setting up an impact fund, where the government is leading as investor, can be played by a third partner, represented by a multilateral development organization or by a non-governmental organization.

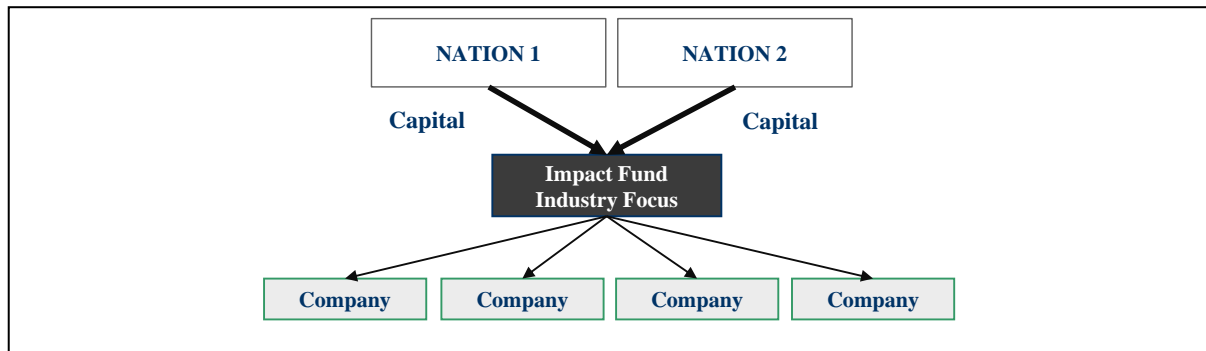
This category of actors, usually due to internal regulation constraints, cannot act as investors but only as facilitators investing grants capital.

Multilateral organizations for development, such as UN agencies and international NGOs, are willing to sustain government driven initiatives for industrial development. These stakeholders can therefore play an important role in the reduction of agency administrative costs, which are higher than usual when the impact fund is committed to invest in micro and small businesses. Intensive mentoring and monitoring activities need to be offered to foster the numerous companies in the portfolio. As well as making this important contribution, the benefit would consist in selecting a good flow of deals, by pointing out type and size of promising suitable investors.

An international and reputable actor, such as a UN agency, is a significant plus in securing the new fund nature and for highlighting the strong idealism for development of the institutional public investor which will commit financial public resources.

#### *Bi-national Fund*

A bi-national fund is established when two nations pledge a predetermined sum for the pursuit of common objectives. A direct participation of public institutions or ministries is foreseen. An agreement which defines the content of the project, its objectives, and activities to be carried out, is jointly prepared by the authorities and officers involved.

Figure 5. *Bi-national Fund.*

A similar initiative can be also be promoted by other parties, especially those preferably belonging to a specific region with common development objectives and where businesses and political interaction positively characterize country relations. A board of directors is appointed by the two governments, and is independent in its decision-making.

The bi-national fund represents a good instrument to streamline R&D projects, as well as to foster knowledge and capabilities sharing. This instrument has been specifically used by the Israeli government in the last few decades to consolidate relationships with historical friendly nations such as U.S. and Canada, as well as to explore new possibilities with nations such as Korea and Singapore.

For emerging countries, this instrument could represent a concrete support to improve overall economic and trade relations within key country partners. A bi-national fund is a good vehicle to favor synergies between companies from the two nations and facilitate technology transfer.

## RESULTS AND CONTRIBUTIONS

The paper proposes a phased plan for policy makers in order to encourage long-term and strategic planning to foster impact capital for impact entrepreneurship.

Concrete impact capital schemes bringing together public and private actors were also elaborated and recommended to catalyse new resources.

The first empirical confirmation, coming from experiences and information collected in the field, is about the importance of bringing together social impact and financial return. These two factors are crucial for personal, corporate and society success.

Policy and investment strategy cannot be geared only toward the good of either the individual or a single community, but indeed to the common good for the entire collectivity. Policy makers have a key role in influencing stakeholders through laws and regulations set up to catalyse impact investors and supporting impact entrepreneurs.

The research underlines the fact that governments can provide direct and indirect financial support

fostering investments in low-income communities and toward depressed industries and markets. When private capital seeks social and environmental benefits, there is an opportunity for governments to design partnerships and set up innovative funds.

The emergence and development of the impact capital industry will improve the matching between pure investors and philanthropist, as well as private and public actors.

Pursuing impact is a means, not only to prevent improper exploitation but also a good way to foster human creativity, industry potentiality and nation development. The paper brings out the fact that there is a growing set of investors categories and entrepreneurs that are willing and able to create both social and financial value. Giving importance and attention to the single person, the future, the environment, and to the importance of giving a contribution for the “others” around us, have an increasing value for a sound business development. The intention to generate impact must not be considered incompatible with the effective capacity to generate profit. In the society, challenges and needs are changing, but the need of partnership and to develop long-term strategy as well as need to face the difficulties the new generation are facing is consistent.

The paper proposes practical action at policy level and concrete investment schemes that can enable countries to become more competitive in attracting investments, overcoming barriers and maximising the impact of both local and international investors.

The research clarifies the importance of bringing all actors categories closer to working for impact. Players that play a key role are not only investors and entrepreneurs, but also all those stakeholders that can facilitate operations and preliminary conditions emergence such as governments, multilateral organizations for development, development financial institutions, universities, industry associations and specialized professionals.

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## THE SUCCESS FACTORS OF A SICILIAN MARKET-ORIENTED WINE COOPERATIVE

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### ABSTRACT

Wine cooperatives have a long tradition in Sicily, as well as in Italy and in Europe. The objective of this paper is to reconstruct the general framework of the Sicilian wine cooperatives that still account for nearly 80% of the regional wine grapes production. In this context we examine the productive, organizational and commercial strategies of a case study: Cantine Settesoli. Founded in Menfi (Western Sicily, Italy) in 1958 on the initiative of a group of wine grape-growers, the Cantine Settesoli has developed over the decades and now represents the major bottled wine cooperative in Sicily, whose 2,135 members own 5% of Sicilian vineyards. With its four wine-making plants, a volume of grapes processed in the last three-year financial period (2011-13) of more than 43,000 tons of grapes per year, an average annual turnover of €47.7 million, and a constant attention to environmental and social issues, Cantine Settesoli stands out as the protagonist in the wine scene, both national (especially with the brands Settesoli and Mandrarossa) and international (with the brand Inycon). It effectively implements traditional and innovative tools of productive, commercial and strategic management, thus representing a model of successful firm in a regional context of cooperatives generally pegged to productive and commercial strategies product-oriented.

**Keywords:** *Wine cooperatives; Sicily; management; strategy; success; performance*

### INTRODUCTION

Wine cooperatives in Europe were established between the mid and late 1800s (Touzard et al., 2008; Pomarici, 2009) in order to cope with the economic difficulties of growers and also following the prevailing political ideology and sociological influences of the time (Touzard et al., 2008). These cooperatives are now continuing to be a vital economic resource, especially for growers with small vineyard plots. In 2010, in Sicily 40,629 wine-growing farms (equal to 10.4% of the national total), of which 41.4% had a wine growing area less than one hectare and 85.5% less than 5 hectares (Istat, 6th Agricultural census). The Sicilian companies when considered on an individual scale do not appear to have any opportunity to compete in the wine market, however when merged within a cooperative

business model, the results are substantially different, showing improved trading power in wine sale (Di Vita et al., 2013). As a result, wine cooperatives (thanks to public funds) are able to invest in technology, innovation and research, improve quality wine, promote new forms of packaging, reduce processing unit costs due to economies of scale (Copa-Cogeca, 2010). It must, however, be emphasized the growing presence of new country producers and exporters (Australia, United States, Chile, etc) - which in a very short time have shown efficient competitive capabilities in technical and economic terms (Ciasullo and Festa, 2013)-, the reform of wine Common Market Organisation (CMO) – targeted to reduce the productive potential of European Union (EU) countries and to guide the supply towards quality production (Pomarici, 2009)-, and in addition, the change in consumer's profile (MiPAAF, 2013; Lanfranchi et al., 2014), particularly in developed countries -linked to the economic development of society and the change of wine-consumption habits-, which have significantly influenced both the structure of the sector and the balance between demand and supply of EU wine production, making it extremely challenging for those companies that operate within it, including cooperatives.

This is the context that fits the economic and productive activity of the wine-growing farms in Sicily. Between 2010-2011, 626 Sicilian bottling companies (private and cooperative) were accounted for a total bottled volume of 193 million pieces (Torcivia, 2012a), most of which produced by private companies; in contrast, a significant share of the regional production of wine grapes is delivered directly to wine cooperatives, which for several years have gone through a process of downsizing also due to the prevailing strategy of producing and selling musts and bulk wines. However, if on the one hand the number of cooperatives within the wine industry in Sicily has decreased, revenues -at least for larger companies- is on the rise, as well as figures concerning bottled wine (in terms of both pieces and turnover), which still remain in the modest numbers' bracket (18.0%) in comparison to the overall supply of regional wine (Torcivia, 2012b).

Data presented by the Regional Department of Agriculture, Rural Development and Mediterranean Fisheries ranks Sicily first in the list of the Italian regions for overall land under wine grapes in 2013, accounting to 103,063 hectares. In the same year grape production amounted to 856,387 tons, while the overall wine production amounted to 6,150,007 hectolitres. In recent years, in face of a marked alternating production with downward trend, there has been a gradual decline in wine growing areas, due to their abandonment, characterized by low profitability, and to the implementation of the interventions provided by the wine CMO (Schimmenti et al., 2013), which led to an intense process of restructuring and conversion of vineyards in Sicily (Borsellino et al., 2012), resulting in quality improvement of wine-grapes which effectively allows to obtain excellent wines. This trend is confirmed in the Sicilian wine trade flows that, in the period 2000-2011 (Inea, 2013) have shown a significant contraction of exports in terms of quantity (-66.0%, due to the decrease in exports of bulk

wines and musts), meanwhile showing an opposite trend in terms of value (+5.7%), related to the increasing amount of bottled wines.

Within the regional wine industry, Cantine Settesoli, subject of this study, differs distinguishably from the other cooperatives, as it has been able to combine tradition and strong local rooting with the new trends that shape wine industry. The aforementioned is, in fact, now the largest wine cooperative in Sicily for bottled volumes (about 2/3 of the net sales revenue in 2013, of which approximately 62% of all overseas turnover), and has a primary place in the national and international wine market.

The objective of this paper is to illustrate the way in which a cooperative society, encompassing the entire value chain, made its productive, organizational, sales and marketing strategies, a point of strength for the commercial success, and a model of market-oriented firm in a regional association context generally characterised by production and commercial strategies product-oriented; the above statement encompasses a strong enough reason to investigate, after a brief introduction on wine cooperatives in Sicily, all stages of the supply chain and the economic and financial performances of this case study.

## LITERATURE REVIEW

In the EU, over 60% of agricultural produce is marketed by cooperatives (Copa-Cogeca, 2010) that nowadays, like other businesses, are facing increasing competitive pressures and have to cope both with new market opportunities and with a greater diversification of consumers' needs and preferences. Cooperatives, unlike private firms, sustain a more conservative attitude revealing traditional preference for the low-cost focus strategy (Salavou and Sergaki, 2013) and facing greater difficulty in adopting market-oriented strategies (Bono et al., 2012). The above statement supports Hardesty (2005), who found that many agricultural cooperatives have chosen a cost-leadership strategy, producing as a *private label* supplier, but only few cooperatives have developed national brands, because of their structural characteristics. Traditional cooperative governance model, in fact, can partially affect development path and efficiency of the cooperatives (Bono et al., 2012) and also the implementation of a market-oriented strategy (Hardesty, 2005; Beverland, 2007; Bono et al., 2012; Couderc and Marchini, 2011). In order to gain competitive positions both within and outside Europe, cooperatives have to move towards more market orientation (Beverland, 2007), by formulating innovation strategies (Perlines et al., 2013), improving quality, distribution management, distribution channels and marketing conditions (Hardesty, 2005; Beverland, 2007), as well as productive efficiency. The current economic situation, with the entrance on the world productive scenario of new countries (Crescimanno and Galati, 2013) with a more aggressive marketing policy (Ciasullo and Festa, 2013) and new competition tools (brands, grape varieties and PGI products), has forced wine cooperatives

to adapt and respond to the new wine market competition arena (Coelho and Castillo-Girón, 2011) by increasing their size, seeking to establish strategic alliances, pursuing mergers with other cooperatives, rationalizing assets, improving the professionalism of their workforces, implementing innovative capital acquisition methods and formulating strategies to expand into multi-country markets (Pomarici, 2009; Perlina et al., 2013). Maietta and Sena (2008, 2010) analysed Italian wine firms and found that cooperatives are well-equipped to cope with increasing market competition and financial constraints. Bono et al. (2012) and Couderc and Marchini (2011) observed that wine cooperatives had successfully improved their competitive position through two main different strategies outlined below: structural costs (bottling plant, storage hall, marketing and sales efforts) saving and marketing large volumes of bulk tailored wine made for market leaders “*négociants*” and their private labels (“differentiated” B2B market), or the implementation of processing activities in order to shift their product range from bulk to bottled wine with their own brands (B2C market). More recently, Schamel and Santos Arteaga (2013) reveal that Alto Adige (Italy) wine cooperatives manage to organize their production decision in such a way to be able to compete -and even beat- with private wineries in terms of wine quality and reputation. Barros and Santos (2007) highlight that Portuguese wine cooperatives are allowed to be more efficient than their private counterparts thanks to different resources, scale economies and organizational structure.

The cooperative sector is pivotal within the Italian wine industry in terms of diffusion, numbers and strategic relevance, covering in some regions (Abruzzo, Sicily and Trentino-Alto Adige) over 65% of the regional wine grape production (Capitello and Agnoli, 2009); Sicily, Veneto and Emilia-Romagna represent on a whole around 60% of the overall national wine production from cooperatives (Pomarici, 2009). Cooperatives take also part in important consortium, as the Chianti Classico one, carrying out operations of purchasing, production and bottling (Gaeta and Corsinovi, 2013). Recent studies analyse and verify the health status of wine cooperative sector both at domestic level (Pomarici, 2009; MiPAAF, 2013; Ufficio Studi di Mediobanca, 2014;) and in some local contexts (Maietta and Sena, 2008, 2010; Capitello and Agnoli, 2009; Chinnici et al., 2011; Couderc and Marchini, 2011; Torcivia, 2012a, b; Schamel and Santos Arteaga, 2013). These studies outline a new Italian wine cooperation system, whose productive focus shifted to the production of valuable products (bottled or aging wines) that reach directly, even with effective branding policies, the final market, especially the international one, from which a growing wine demand is observed (in face to a significant and structural decline in domestic consumption).

## **SURVEY METHODOLOGY**

In order to outline the framework of Sicilian wine cooperatives, in the absence of complete and comprehensive official data, we used records published in previous papers related to this theme (Torcivia, 2009, 2012b) and provided by the Regional Department as well as data collected directly from the web page of the Sistema Informativo Agricolo Nazionale (SIAN).

The investigation of the Cantine Settesoli carried out through direct interviews and a survey questionnaire used in previous researches (Schimmenti et al, 2011) and adapted to the wine sector. The questionnaire (organised into three sections, the first one relating to the general characteristics of firm, the second part relating to the analysis of the technical aspects of production and processing, and the third one concerning the commercial aspects as well as aspects involving the use of hardware and software's infrastructure), submitted to Settesoli managers on several stages due to the complexity of the cooperative activities, allowed the collection of data concerning production, processing and trading topics with reference to the financial years of 2011-2013 (each financial cycle opens on July 1<sup>st</sup> and ends on June 30<sup>th</sup> of the following year, therefore the data collected refer to the grape-harvests 2010-2012), and socio-structural and managerial aspects referred to the 2013 year, thereby reconstructing all the stages of supply chain. The study also provided the evaluation of the cooperative's performance by analysing its financial statements of the last three administrative-accounting years (2011-2013), made comparable by performing the reclassification of the Balance Sheet (based on financial criteria) and Income Statement (on the basis of value added), and the determination of the main financial ratios: profitability ratios (ROI, ROS, ROT and ROD), structural indicators of assets (the rate of the circulating assets and the rate of the fixed assets), of the liabilities (financial autonomy and debt ratios) and of balance sheet (equity-to-fixed-assets ratio, working capital and current ratio, and quick ratio). ROI, ROS and quick ratio were also compared with those ones obtained from other surveys on the regional and national wine sector (Ufficio Studi di Mediobanca, 2014; MiPAAF, 2013).

## **WINE COOPERATIVES IN SICILY**

Wine cooperatives in Sicily were born in the '30s, but began to have relevance only in the early '70s, showing a substantial growth up to 2001, when 102 active cooperatives were recorded. In the following years, up until now, the sector has experienced a significant reduction in numbers, especially due to product management issues or to the phenomena of merging and acquisitions (Torcivia, 2012b).

In 2013, based on the SIAN data, the cooperatives which have regularly declared their wine production were 59, with a total of over 0.7 million tons of wine-grapes delivered, with a ratio of 82%

among the production of wine-grapes within the regional production; those deliveries have concerned in prevalence white grapes (0,5 million tons) as opposed to the black ones. The presence of wine cooperatives has always been more consistent in the province of Trapani (33 units in 2013) province has the regional leadership in terms of wine growing area, followed by the provinces of Palermo and Agrigento with a significantly lower number of cooperatives (respectively, 12 and 9). Moreover, according to the data collected from the SIAN web page in 2013, there were 19,471 wine-grape suppliers (both members of cooperatives that non-members) within such companies; in particular, there are only three cooperatives with over 1,000 suppliers: Cantine Colomba Bianca (1,836 units), Cantine Settesoli (1,691 units) and Cantine Ermes (1,045 units). When taking into consideration the vineyard area, only Cantine Settesoli and Cantine Colomba Bianca exceed, individually, the threshold of 4,000 hectares of vineyards, while within the processing aspect only four coops (Cantine Colomba Bianca, Cantine Ermes, Cantine Settesoli and Cantine Europa) processed more than 40,000 tons of grapes each.

## RESULTS

### Managerial, socio-structural and productive aspects

The organization of Cantine Settesoli is very complex and articulated. More specifically, the winery has established an organizational structure in which managerial responsibilities of the various business functions, broken down by sector technical management and distribution channel/destination market, are delegated to managerial roles with specific skills according to a pyramidal system of responsibility.

Founded in Menfi (in province of Agrigento, Western Sicily) in 1958 with the legal status of agricultural cooperative society, Cantine Settesoli's mission is to enhance the wine grape production of its members, and to protect and improve the conditions and activities of members operating within the local area. Its vineyards' areas, which extend for about 5,500 hectares, make it not only the largest vineyard in Sicily (covering around 5% of the regional wine growing area), but also a great source of employment for farmers and more generally for the local population as a result of the generated satellite activities. The members of the cooperative amount to 2,135 (of which 1,841 delivered their production in the 2012 harvest), mostly represented by farmers; at the same time the cooperative resorts to non-members wine-growers.

In 2013, the number of permanent employees accounted for 47 units (14 staff units more than in 2011), while seasonal workforce was employed for a total of 26,091 working days (1,184 days more than in 2011).



The four wine-making plants, together with bottling, packaging and storage of wines cover an area of 18,960 square metres, with the addition of squares, cars parking, roofed areas, etc. with an overall outer surface of 94,783 square metres.

In the “vineyard Settesoli” the most common method of grape growing is the simple spurred cordon, and the cultivation of both indigenous and non-indigenous grape varieties (black and white grape) can be found.

#### Processing and commercialisation

After the harvest (in recent years mechanised harvesting of white grapes during the night has been introduced) and the delivery of grapes to the cooperative, the process of winemaking begins in its different stages: crushing, fermentation and subsequent classification of each batch in order to create specific *cuvée*. The production cycle is completed by an automated line for bottling and packaging, with an effective capacity of about 9,500 pieces/hour (bottle, bag in box and tetra-brick). The data regarding the last 4 grape harvests show a remarkable production variability, with a minimum peak in 2011 (41,213 tons of processed grapes) and a maximum peak in 2013 (55,982 tons), mainly ascribable to climatic conditions (Table 1).

In the three grape harvests 2010-2012, there has been an increase in the average price paid per ton, due to the increase in sales prices both in Italy and abroad; the aforementioned confirms the validity of the company's strategy to focus on wine quality and on the more lucrative markets.

Items	Grape harvest			
	2010	2011	2012	2013*
Grape processed (tons)	45,222	41,213	43,150	55,982
Grape harvest surface area (Ha)	5,317	5,377	5,430	5,479
Average price paid (€/ton)	3.8	4.6	4.7	n.a.

Table 1. *Table 1: Production and income data.*

\* *The figure of the grape harvest 2013 will be recorded in the year 2014, it is not available in this survey.*

Cantine Settesoli focuses its commercial strategy on brand's reputation, on the perceived value of the product and a complete line of products which has three brands of packaged wine -Settesoli, Mandrarossa and Inycon- covering all price and consumption ranges.

Inycon, available only on foreign market, has successfully been sold for over 10 years within the major grocery chains in the United Kingdom. The brand is also becoming popular within other markets such as Belgium, the Netherlands and Switzerland.

In Italy, however, the company has decided to focus solely on Settesoli and Mandrarossa lines. For the Settesoli label the company has created a national sales network to ensure a widespread presence across the country through large-scale retail channels (around 15). The brand, aimed at a target audience of consumers who ask for a good wine at an affordable price, includes three product lines: the line “Settesoli GD” (with a final price of 3.50 - 4.50 €/bottle), the line “Porta Palo” (2 €/bottle), and the line “Torre Solada (1.20 €/tetra-brick).

The “Mandrarossa” wines represent the top range: produced from a careful selection of grape varieties, are marketed towards a medium-high target (Ho.Re.Ca, etc.) market, with an average sales price of about 10 €/bottle.

Finally, in addition to the three aforementioned brands, part of wine is bottled and marketed with *private labels* of channel stores, whilst another part is sold in bulk quantities.

Most of the cooperative revenues (the average figure for the three years amounted to 47.7 million €/year) derives from the sale of packaged wine, followed at a considerable distance from the bulk one; the revenue generated by the sale of musts and other minor products is very low. Packaged wine is primarily marketed in the foreign market, while the bulk wine and the musts are addressed to the national market (Table 2).

The business strategies adopted by the company for bottled wines are closely linked to different markets and distribution channels: within the international market, business relationships are managed through a joint venture with a British partner, while in the national market the medium-term objective is to propose, especially in the large-scale retail channel, increasing volumes of product with excellent value for money. It is not, however, disregarded the sale of products at reasonable prices (tetra-brick) driven by specific demands of consumers with limited disposable income. The business strategy of the company provides, among other things, the launch of new products and packaging.

l year	Products	Italy				Foreign		Total	
		Sicily		Other regions		markets			
		€	%	€	%	€	%	€	%
	Bulk wine	1,739,099	13	10,167,040	76	1,471,545	11	13,377,684	100
2011	Packaged wine	5,114,015	18	3,125,232	11	20,171,950	71	28,411,197	100
	M.C./M.C.R.	42,898	3	1,301,227	91	85,795	6	1,429,920	100
2012	Bulk wine	1,223,763	8	11,625,753	76	2,447,527	16	15,297,043	100

	Packaged wine	6,530,009	21	4,353,339	14	20,211,931	65	31,095,279	100
	M.C./M.C.R.	43,439	3	1,288,685	89	115,837	8	1,447,961	100
	Bulk wine	1,178,320	10	10,133,554	86	471,328	4	11,783,202	100
2013	Packaged wine	7,522,478	24	4,388,112	14	19,433,068	62	31,343,658	100
	M.C./M.C.R.	48,661	4	1,021,883	84	145,983	12	1,216,527	100

Table 2. *Table 2. Sales in Italy and abroad of packaged and bulk wine and grape must.*

M.C./M.C.R.: Concentrated grape must/Rectified Concentrated Grape Must.

#### Informatisation and communication

The cooperative utilizes very innovative hardware and software tools for various activities, such as orders, sales and quality management, warehouse operations, payroll activities, contract management and marketing operations.

Cantine Settesoli has two websites ([www.cantinesettesoli.it](http://www.cantinesettesoli.it) and [www.mandrarossa.it](http://www.mandrarossa.it)) providing a wide variety of information and services: wine shop, where consumers can buy products directly from the cellar. The Internet is also used to access banking services, to source new customers and suppliers, for on-line purchasing and for e-learning.

On each label of the Cantine Settesoli packaging there is a stamped identification code that allows to travel backwards through all stages of the supply chain. In addition, on Settesoli and Mandrarossa labels there is the QR Code that refers the consumer to an iPad app created by the cooperative and promoted for the first time at the 2013 Vinitaly.

The process of the Settesoli brand-building began some years ago with a strong marketing strategy promoted on national TV, on Sky Sports channels, on some of the press, the web, and through the marketing at both national and international wine fairs.

Throughout the year, Cantine Settesoli welcomes enthusiasts and professionals from all over the world for guided tours (in several languages) which start from the vineyard and continue and conclude in the cellar with a wine-tasting.

#### Research and development

The company, also with the collaboration of Regional bodies, has been actively involved in research and development, in order to keep up to date with new technological means of production, wine quality improvements, sourcing of raw material and embrace a sustainable method of packaging its products.

The cooperative has also embarked on a long research program aimed at broadening its ampelographic base and hence improve the quality of their wines; the results of such research are then transferred to all the members.

The company has recently developed a photovoltaic system with a total capacity of 537 kWp and a biomass plant that generates “clean” heat and power through the use of led lamps, and has also adopted fibreless wood paper for its packaging operations.

In 2003, the company has also successfully achieved the major goal to be able to fully trace and certify each stage of the production cycle; and currently it has a large number of quality certifications, some of which are explicitly required by the foreign market.

Finally, the company supports and embraces humanitarian programs.

#### Economic and financial performance

The economic and financial analysis of a cooperative operating in the agri-food system must encompass various factors that characterize these types of company, such as the limited equity capital, participation of members in the financing under various forms and the mutualistic aims pursued (MiPAAF, 2009). Transformation cooperatives tend to remunerate their members at a greater rate than the market prices; therefore, their income statements do not generally indicate profits, with a significant impact on the financial ratios.

As noted above, this study has taken into consideration the financial statements of Cantine Settesoli of the last three administrative-accounting years (2011-2013). The analysis carried out, with reference to the composition of the assets, shows a high prevalence of current assets, which stood stable at around 72-73%, mainly represented by trade and other receivables (consisting mostly in short-term loans to customers and members) and wine inventories, while fixed assets, principally composed of the tangible assets, are approximately 27-28% (Figure 1).

The examination of the company's liabilities shows an overall low level of capitalization (net equity) - that is distinctive among cooperative societies- and a significant use of borrowed capital -among which current liabilities have a clear and growing prevalence- that is offset by a gradual reduction in consolidated liabilities (consisting mostly in self-financing members, which amounted last year to just over €9 million, and in medium-long term liabilities).

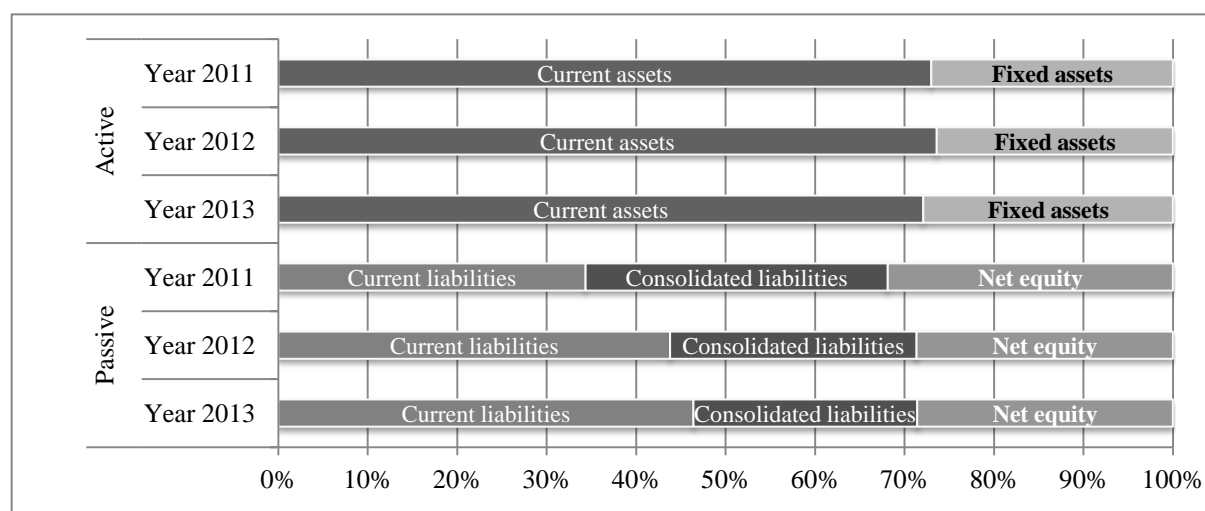


Figure 1. Evolution of the equity structure in the triennium 2011-2013.

An examination of income statement highlights a significant proportion of raw material costs (varying between 69.5% and 72.4% in the three investigated years) and the breakeven reached at the end of the financial year, taking into account the distribution of profits to members.

The value added shows an increasing trend (from €6.8 million to €6.9 million) but fluctuates when considered in relative terms; a similar trend was noted for the gross operating margin. The operating income of Cantine Settesoli shows an increasing trend (reaching €511,588 in 2013). Financial charges show a negative trend due to increased exposure to the banking system (from -€608,109 to -€907,995). More specific information on the company's profitability may be obtained by reading the ROI, which has increased the given figures slightly by around 1% (Table 3). These values are lower than the average in the sample of 33 Italian cooperatives (3.0% in 2012) and in the sample of regional wine firms, coops and not (1.3% in 2012) as reported on the wine sector survey carried out by the Ufficio Studi di Mediobanca (2014).

Indices	Financial years		
	2011	2012	2013
ROI	1.01%	1.06%	1.24%
ROS	1.40%	1.47%	1.84%
ROT	0.72	0.72	0.68
ROD	1.21%	1.25%	1.49%
Leverage	3.14	3.49	3.50
Rate of the circulating assets (Elasticity)	73.0%	73.6%	72.1%
Rate of the fixed assets (Rigidity)	27.0%	26.4%	27.9%
Financial autonomy ratio	31.9%	28.7%	28.6%
Debt ratio	68.1%	71.3%	71.4%
Equity-to- fixed-assets ratio	1.18	1.09	1.02
Working capital	24,366,514	20,727,553	17,961,124
	€	€	€
Current ratio	2.13	1.68	1.55
Quick ratio	1.38	1.05	0.84

Table 3: Balance sheet ratios in the triennium 2011-2013.

From the analysis of ROS, its growth appears to be steady inclined, which signifies a positive sales policy accrued by the company, although the figures are still relatively low when compared with those ones collected by MiPAAF (2013), related to others medium-large wine cooperatives (2.4% in 2011). Within the three years, ROT figures show stable values, whilst low ROD values (albeit increasing) indicate the careful choices made by the cooperative in accepting external sources of finance. Finally, the leverage shows an increase in corporate debts.

Among the structural indicators, those relating to assets confirm the high degree of elasticity of the invested capital, which denotes the ability of the cooperative to adapt suitably to changing market conditions; whilst the composition of the liabilities highlights the lack of financial autonomy that may cause difficulties in accessing to credit, settlement of liabilities and development. Referring to balance sheet indicators, the equity-to-fixed-assets ratio assumes decreasing values but higher than 1, expressing a sustainable situation in terms of the strength of the company's assets. The assessment of cash equivalents by the cooperative was made through the determination of the working capital and the current ratio, which indicate, respectively in absolute and relative terms, a good availability of the firm even though in steady decrease. Within the analysis of the company's solvency, the quick ratio shows, in 2013, a situation in which short-term debt may be extinguished only by the return in liquid form of a part of inventories. The above is in line with data reported in the survey on the national wine cooperation carried out by the MiPAAF (2013).

## DISCUSSION AND CONCLUSION

The winemaking industry has represented for many years a leading market within national and Sicilian agro-food sector, which continues to be object of investments. Within the same sector, wine cooperatives play an important role, especially in those regions, as the case of Sicily, where supply is fragmented. The Sicilian cooperatives in recent years have reported a numerical scaling, although a high number of product-oriented companies still concentrate most of the regional wine supply, without having been yet oriented towards the production specialization (in alternative to bottling) achievable, according to Couderc and Marchini (2011), through the production of bulk wine suitable to contract specifications aimed at satisfying market leaders as *négociants* and their private label (B2B differentiation strategy). Herein we analysed the activities of the supply chain implemented by the cooperative Cantine Settesoli, a very prominent wine-producing market-oriented company on both regional and national level, whose evolution has ensured an efficient management and beneficial outcomes for its members.

To keep up with the ever changing wine market, the cooperative Settesoli, which ranks first in terms of bottled wine within the Sicilian wine cooperatives, has the goal to increase the production of the

more profitable brands, although it still sells a significant amount of bulk wine. At the same time, the cooperative is aware of the various markets demands and the different consumers and therefore is inclined to continue with the production of more affordable wine products that can be used on a daily basis.

The cooperative carries out on-going research and development aimed at improving the quality of its produced wines, through the use of technical means and advanced technologies.

On an international level Cantine Settesoli has established a very prosperous joint venture with a British partner, and on a national level it has established trading affiliations with the large-scale retail channels (main distribution channel in Italy) -despite they have proven to be costly and lengthy with their payments (60-90 days)- and with the restoration, in which the most criticality concerns payment timing (in many cases over 120 days).

By investing about 3% of its turnover in marketing and promotion as well as having increased its sales in the domestic and international markets, Cantine Settesoli plays a pivotal role among the local community, also in terms of tourist attraction by promoting and participating to wine and gastronomic events. From a management point of view, these initiatives have greatly increased the complexity of the business and its programming and created the need for relevant managerial skills, but requiring at the same time the use of external financing due to the lack of financial autonomy, characteristic of agri-food cooperatives and in particular of wine cooperatives.

Cantine Settesoli successfully implements traditional and innovative management tools, and given its growth prospects, it can be viewed as a business model to be followed, as part of a cooperative Sicilian wine system that must face an increasingly competitive market. In this regard, future research could be directed towards the study of those Sicilian cooperatives still product-oriented but able to develop themselves towards a B2C market or to differentiate their B2B strategy through the offer of “differentiated” bulk wines.

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# EXPATS IN LUXEMBOURG: HOW CULTURAL SPECIFICITIES IMPACT THE USE OF SOCIAL NETWORKING TECHNOLOGIES AND HUMAN RESOURCE PRACTICES IN LUXEMBOURG

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## ABSTRACT

The purpose of this research is to investigate, in this world of global mobility, the cultural and language characteristics of Luxembourg that may influence the tendency of HR specialists in Luxembourg to utilise NSNT. The methodology is first a profound literature review in global mobility, in HRM and NSNT, second interviews in 41 companies, and third questionnaires in 1 company with 134 filled-in questionnaires, evaluated in SPSS. Findings are: first, the author finds that HR managers are reluctant to using NSNT, keeping practices surprisingly mainly unchanged. Second, looking at the specific political, economic and historical context of Luxembourg using Hofstede's cultural dimensions, the author finds that Luxembourg has a high level of 'Uncertainty-Avoidance', 'Long-Term-Oriented' combined with 'Happiness'. Limitations are the comparatively small sample size, the data collected only in one company, and the lack of a strong theory to link culture and happiness, and could all have biased the results and their interpretations. Practical implications are given for expats, their spouses and family coming for work to the Grand Duchy of Luxembourg, trying to cope with the cultural and linguistic specificities described in this research, especially in the HR Domain and global mobility. Regarding social implications, the author hypothesizes that the reluctance to use NSNT is related to Luxembourg's high score on 'Uncertainty-Avoidance' and that Luxembourgish language is used as an identifier. The originality of this research lies in its usefulness for expats, global managers, in their attempt of integration into Luxembourg.

**Keywords:** *Global mobility, expats, Human Resource Management (HRM), Social Networking, cross-cultural management, Hofstede's cultural dimensions*

## INTRODUCTION

The purpose of this study is to explain to expats, their spouses and family coming for work to the Grand Duchy of Luxembourg, in this world of global mobility trying to cope with the cultural and

linguistic specificities described in this research, especially in the Human Resources Domain the impact of social networking technologies on human resources practices in Luxembourg while analysing the cultural pattern of Luxembourg. Digital social networks like LinkedIn, Viadeo, Xing, Facebook and Twitter have revolutionised human resources practices. This research investigates (1) global mobility and expats, (2) dimensions of culture, (3) economic, geographical, political and social context in Luxembourg, (4) Luxembourg's history, (5) culture and language, (6) Luxembourgish language, (7) Human Resource Management, and (8) social networking technologies. In this world of global mobility, this research investigates the extent of the use of new social networking technologies in Luxembourg, considering its cultural pattern. For expats, their spouses and family, the Grand Duchy of Luxembourg and its specific place in Europe are detailed. The research will be undertaken within the specific political, economical and historical context of Luxembourg. Hofstede's dimensions of culture are discussed: 'Individualism/Collectivism', 'Power Distance', 'Masculinity/Femininity', 'Uncertainty Avoidance', 'Long-Term Orientation/Short-Term Orientation', 'Indulgence versus Restraint' and 'Monumentalism'. The hypothesis is discussed that this reluctance to use social networking technologies is founded in Luxembourg's high score on 'Uncertainty Avoidance'. Also the fact, that the Luxembourgish language, a challenge for all expats, is used as an identifier in the Grand Duchy, might represent a brake to the extent of use of new social networking technologies. Human Resources Practices have a historical background and have developed throughout the years. While standard HRM was for a long time exclusively about HR administration, it is nowadays still about HR administration but also about recruiting and staffing best practices, talent management, and more and more about communication, new social technologies and e-HR. The research question is: Why have human resources specialists in Luxembourg been reluctant to utilise new social networking technologies, considering its special cultural pattern following Hofstede? Interviews, questionnaires and case studies are performed in 41 companies in Luxembourg. Results are presented. Conclusion, references and appendices follow.

## **GLOBAL MOBILITY**

Globalization of business intends global mobility of people. These people move from one country to another, moving their entire family and homes, taking on responsibilities and encountering challenges never thought of (Brookfield 2011). Cross-national collaboration (Hinds et al. 2011) is increasing, bringing increasing complexity, fragmentation (Tharenou 2005) and employees' careers challenges, given the intensity of global mobility and repeated staff transfers (Shaffer et al. 2012).

Most expat destinations are United States, China, and United Kingdom (Brookfield 2011). Despite some recent research, there is a lack in knowledge concerning expatriation, especially in small, so far

unexplored countries, such as the Grand Duchy of Luxembourg. This research intends to provide information both for companies and individuals, facilitating the expatriation process into Luxembourg, providing insight into (1) global mobility, (2) Luxembourg's special culture, (3) Luxembourg's history, (4) Luxembourg's language, (5) Human Resource management practices in general (6) social networking technologies in general and in Luxembourg.

Among the existing literature the research is investing into research of short-term international assignments in multinational companies facing cost issues together with rising staff mobility, including short-term, commuter, rotational, contractual and virtual assignments (Tahvanainen et al. 2005). It is also researching into career choices, challenges and career consequences associated with corporate global employees – flexpatriates, short-term assignees and international business travellers (Shaffer et al. 2012). When staffing global positions, challenges arise through the manageability of multiculturalism (Harvey et al. 2011) trust – affective and competence-based – helps subsidiary acquiescence to headquarters. Intercultural aspects of collaboration across national boundaries are researched by Hinds et al. (2011) using social networks and technology use to illustrate how cultural differences generate different behaviour, explaining potential incompatibilities in the global workplace. This shows that mostly the complexity of global staffing in expatriate assignments is underestimated and more strategy is needed for global staffing (Collings et al. 2007; Welch et al. 2007). Also the complexity of work-family conflict, psychological turbulences in international assignments and exacerbating effects of the expat-commitment are researched by Shaffer, Harrison, Gilley, and Luk (2001).

## **DIMENSIONS OF CULTURE**

Geert Hofstede (1980), in his monumental research on culture at IBM, has instigated worldwide research efforts. Culture has been found to have dimensions, the question is not if, but how many. Hofstede initially came up with four dimensions - Individualism versus Collectivism, Uncertainty Avoidance, Power Distance, and Masculinity versus Femininity. He later added a fifth dimension , Long-term versus Short-term Orientation (Bond and Hofstede 1983), and has just added a sixth dimension - Indulgence versus Restraint (Hofstede 2001) and together with Minkov (2011) is about to add a seventh dimension - Monumentalism.

Hofstede (1980) defines culture as the “collective programming of the mind which distinguishes the members of one human group from another”. Hofstede defines Uncertainty avoidance (UAI) as “the extent to which people feel threatened by uncertainty and ambiguity and try to avoid these situations” (Hofstede 2001). He defines Individualism (IDV) as “people looking after themselves and their immediate family only, versus people belonging to in-groups that look after them in exchange for

loyalty" (Hofstede 2001). The individualism/collectivism cultural dimension has been researched in detail by Triandis (1995) and Triandis and Gelfand (1998) dividing into four dimensions: vertical and horizontal individualism and vertical and horizontal collectivism. Power Distance (PDI) is defined as "the extent to which less powerful members of a society accept and expect that power is distributed unequally" (Hofstede 2001). Masculinity/Femininity (MAS) is defined as: "the dominant values in a masculine society are achievement and success; the dominant values in a feminine society are caring for others and quality of life" (Hofstede 2001). Hofstede (2001) defines Long-Term Orientation (LTO) as "the extent to which a society exhibits a pragmatic future-orientated perspective rather than a conventional historic or short-term point of view." Hofstede defines Indulgence versus Restraint (IVR) as: "Indulgence stands for a society that allows relatively free gratification of basic and natural human drives related to enjoying life and having fun. Restraint stands for a society that suppresses gratification of needs and regulates it by means of strict social norms" ([www.geerthofstede.nl](http://www.geerthofstede.nl)). Minkov defines Monumentalism (MON) versus Flexumility as: high pride, immutable identities, values, norms and beliefs (Minkov 2011).

Today, Hofstede's work is known, accepted, praised, replicated, and also criticized. Some significant culture studies have followed Hofstede. They include culture research projects such as the Chinese Value Survey by Bond et al. (2004), Cameron and Quinn (2011), De Mooij (2011), Gert Jan Hofstede et al. (2002), the GLOBE by House et al. (2004), the European Value Survey and the World Value Survey by Inglehart (2005, 2008, and 2011), Minkov (2011), Schein (2009), Schwartz (1990), Smith (2006; 2002), Triandis (1982 and 1995), Trompenaars and Hamden-Turner (1997). Researchers besides the Hofstede era are Scholz and Böhm (2008) who specialize into Human Resources and Lewis (2006) who specializes in language programming. Researchers beyond the Hofstede's era, such as Nakata (2009), Briley (2009), and Hong (2000), have extended cultural research into psychology, anthropology, and philosophy.

In 2010, together with his son Gert Jan Hofstede and Michael Minkov, Hofstede published "Cultures and Organizations, Software of the Mind, Third Edition". In this edition Hofstede et al. surprised with a sixth dimension of culture titled "indulgence versus restraint", or "subjective well-being" or "happiness," constructs. The influence of Minkov is not only felt by the addition of a seventh dimension of culture titled "Monumentalism", but also Hofstede's advice not to invest further in data collection, but to rather use secondary data, as Minkov (2010) who analyzed Inglehart's data from [www.worldvaluessurvey.org](http://www.worldvaluessurvey.org), has done.

Geert Hofstede's research has not only been subject to enthusiasm (Sorge 1983, Triandis 1982), or to reviews (Cooper 1982, Eysenck 1981, Smith 2002, Smith 2006) but also to criticism, contestation and controversy (McSweeney 2002, Roberts and Boyacigiller 1984, Søndergaard 1994). Hofstede states: "I

made a paradigm shift in cross-cultural studies, and as Kuhn (1970) has shown, paradigm shifts in any science meet with strong initial resistance" (Hofstede 2002). The discussion exchange between Hofstede and McSweeney is regarded as closed by Hofstede. Hofstede also had an exchange with Hampden-Turner and Trompenaars (1997) about the validity of their filled-in questionnaires. The debate between Hofstede and the GLOBE led Smith to write his 2006 article about the famous elephants. The five main criticisms of Hofstede's approach have been enumerated by Hofstede (2002) himself: "(1) Surveys are not a suitable way of measuring cultural differences; (2) Nations are not the best units for studying cultures; (3) A study of the subsidiaries of one company cannot provide information about entire national cultures; (4) The IBM data are old and therefore obsolete; and (5) Four or five dimensions are not enough."

This study takes on the second challenge of Hofstede's criticism, namely, that national boundaries are not the best unit of analysis of studying culture, and uses the example of Luxembourg to demonstrate that language is a better identifier of culture rather than geographical boundaries of nations. It compares data collected in three subsidiaries of one company in Germany, France and Luxembourg, to demonstrate that Luxembourg's dimensions of culture are not proxies for the average values found by Hofstede in France and Germany, but rather are unique and a result of Luxembourgish, which, along with French and German, is one of the official languages of the Grand Duchy. Hence, the next section delineates background information about Luxembourg such as economic, geographical, political, social, historical and language, as well as some research reports about culture and happiness in Luxembourg, followed by a set of hypotheses.

## **ECONOMIC, GEOGRAPHICAL, POLITICAL AND SOCIAL CONTEXT IN LUXEMBOURG**

Luxembourg is a parliamentary democracy with a constitutional monarch at its head. Along with Belgium, Germany, France, Italy and the Netherlands, the Grand Duchy was one of the signatories of the Treaty of Rome in 1957. The ensuing creation of the EEC (European Economic Community) and EURATOM (European Atomic Energy Community) formed the nucleus of the later EU. On 18 April 1951 it was a founding member of the CECA (Communauté Européenne du Charbon et de l'Acier, or in English, European Coal and Steel Community), the Paris treaty, together with the Federal Republic of Germany, France, Italy, the Netherlands and Belgium. In Luxembourg, European cultures meet on a small piece of land, that hosts people with high level of tolerance. The European Commission has its seat in Brussels and Luxembourg. On May 1st, 2004, ten new countries joined the European Union, including seven former Eastern Bloc countries. On January 1st, 2007 two more such countries joined, establishing the current membership at 27 countries.

The Grand Duchy of Luxembourg's motto is: "Mir wölle bleiwe wat mir sinn", which in English means "We want to remain what we are". The capital of Luxembourg carries the same name as the monarchy. Official languages are German, French, and Luxembourgish. The Government is a Parliamentary Democracy and a Constitutional Monarchy. The Grand Duke's name is Henri; the Prime Minister is Jean-Claude Juncker. The population is growing fast, as in 2009 it was approximately 493,000, in 2010 it was approximately 502,000 and in 2011 it was approximately 511,000. It is the world's only remaining Grand Duchy. It has the second highest Gross Domestic Product per capita (\$84,829; IMF 2011) in the world. It is a founding member of ECSC (European Coal and Steel Community), European Union, NATO, OECD; it has been part of the euro zone since 1999. This shows its high interest in European integration. The small army often is the subject for a laugh: it consists of around 800 soldiers. There is no navy and no air force. Luxembourg is the host to 17 NATO AWACS airplanes, one A400M military cargo plane that are shared with Belgium, and 3 NATO Boeing 707.

Luxembourg is one of the smallest European countries, it measures 2,586 km<sup>2</sup>, 82 km long and 57 km wide at its longest and widest points. Until the 1960 the steel industry was the engine of Luxembourg's economy; after 1960, the banking and financial sector took over. The Luxembourgish language is a German dialect from the Mosel region, filled with French and Dutch words and expressions. Luxembourgish is one of the three national languages. In school, pupils speak and study in German, French, Luxembourgish, and may later study English, Portuguese and Italian.

Luxembourg's total population consists of 511,800 inhabitants of whom 290,500 (56.76%) are Luxembourgers and 221,300 (43.24%) are foreigners (data from statec, 2011). During the day time, 138,700 cross-border workers come to Luxembourg to work: 74,100 French, 37,800 Belgian, and 37,500 German. This means a total of 357,800 for domestic employment. 357,800 people were working in Luxembourg in 2010, out of them 219,100 were residents and 138,700 were cross-border workers. 39% of the domestic employment consists of cross-border workers.

The capital of Luxembourg had approximately 94,000 inhabitants in 2011, 60% of whom were foreigners. During the day, this equation changes dramatically, as the work force is commuting into the town of Luxembourg from Germany, France and Belgium. The TGV link makes Luxembourg only two hours away from Paris. RTL (Radio Television Luxembourg) and SES ASTRA (Société Européenne des Satellites); European Skype, eBay and Amazon are headquartered in Luxembourg. Working in Luxembourg is described in detail by American Chamber of Commerce (2010).

There are 45,000 European civil servants, out of this number 9,500 are present in Luxembourg; this means 5.5% of the Luxembourg active population. 42.3% of the Luxembourgers are civil servants (IPSE, 2010). The European Institutions in Luxembourg are: Secretariat of the European Parliament,

European Council (2nd), Court of Justice and Court of Auditors. There are also: European Investment Bank, European Investment Fund, European Union Publications Office, and Eurostat. The European Institutions are distributed following: Brussels hosts the Commission, Council of Ministers, European Council (1st), Parliament (2nd). Strasbourg hosts the Parliament, Luxembourg hosts the Parliament (secretary), Council (2nd), Court of Justice, Court of Auditors. Frankfurt hosts the European Central Bank, see more information on the website of the Office for Official Publications of the European Union <http://ec.europa.eu/publications>.

There is very little research in general about Luxembourg. The existing literature is mostly descriptive (Background Note Luxembourg 2006, Dumont et al. 2008, paperJam). The most recent publication, in French, on history and politics in Luxembourg has been written by Haag (2011) and includes excellent photographs underlining his detailed historical overview. One recent publication is from IPSE (2010), in German, but it does not relate in any way to Hofstede's dimensions, nor does Spizzo's book published in 1995.

## LUXEMBOURG'S HISTORY

Despite all the wars in Europe Luxembourg still survives. Despite all the requests from the European partners for fiscal homogeneity, despite the demands to abolish the borders and the ending of bank secrecy, and the exchange of information on bank accounts, Luxembourg still survives. Luxembourg is a small country, and it is strongly attached to the rock it is built on, like a medieval defensive city (Spizzo 1995).

Luxembourg has always stayed politically 'neutral'. This 'neutrality' has often been compared with Switzerland's neutrality. Luxembourg was able to stay neutral between its two mighty neighbouring countries, France and Germany. Therefore the 'privileges', namely, low direct and indirect taxes, low or non-existent income tax, work opportunities, low unemployment, high salary, cheap gasoline, cigarettes, alcohol, and more, are seen as a unifying identifier for the Luxembourgers. These privileges make the difference between the 'in-group' and the 'out-group' (Briley 2005), between 'being Luxembourger or not'.

After World War I the need was to assure national identity, to make people understand why it was important to be 'Luxembourgers', to give value to the concept of 'citizenship', and being a 'Luxembourg citizen'. Only when Nazism engulfed this small country, because to the Germans this small piece of land seemed to be German, did the linguistic aspect attain its importance.

History shapes the character of a nation. Haag (2011) states, that Luxembourg developed from a provincial town to a European capital, an international financial centre, and a worldwide freight centre. In 2008 the Clausen zone was created for entertainment, in 2005 the Philharmonic Orchestra



was inaugurated, the MUDAM in 2006 and the Congress Centre in 2012 (Haag 2011). The 2010 Mercier report puts Luxembourg in 20<sup>th</sup> position among 221 towns for its quality of life (Haag 2011 p. 541). Prominent European personalities, such as Robert Schumann, Jean-Claude Juncker, and Jacques Santer, are from Luxembourg (Haag 2011). RTL – Radio Television Luxembourg, SES Astra – Société Européenne des Satellites, and EIB – European Investment Bank - are important companies from Luxembourg (Haag 2011). Luxembourgers are trilingual, sometimes quadri-lingual or quinti-lingual, or command even more languages, as described in the following.

## **CULTURE AND LANGUAGE**

The relationship between ‘culture and language’ has been studied by Kashima and Kashima (1998), testing the use of first- and second-person singular pronouns (‘I’ and ‘you’) in correlation with Individualism, and by doing so correlating language and culture. The relationship between ‘cultural background’, ‘language’, ‘geographic region’ and ‘ethnic identity’ was researched by Taylora et al. (1973). Lewis (2006) specializes in research on ‘language programming’ in relation to cross cultural leadership. Sherzer (2009) investigates the relationship between grammar and culture, where language conditions thought, perception and world view. Bi-cultural’s ability of frame switching through language has been researched by Briley et al. (2005) and Hong et al. (2000). Language has been identified as a manipulator of consumers’ behaviour (Briley et al. 2005; Hong et al. 2000).

As argued earlier, Luxembourg with its special Luxembourgish language as well as other official languages, and its unique demand for the command of Luxembourgish as a condition for citizenship, provides an appropriate background for testing the role of language as an identifier of culture. Luxembourg’s language is described next, followed by the relevant hypotheses.

## **LUXEMBOURGISH LANGUAGE**

Today, 320,000 people are Luxembourgish native speakers. The Luxembourgish language (Spizzo 1995) has become the discriminating factor to distinguish between those who are able to benefit from Luxembourgish citizenship and those who are not. Luxembourgish possesses the characteristics of a dialect, proven by the fact that there is no translation of the Bible into Luxembourgish. Luxembourgish is a spoken language and does not have a long written tradition (Spizzo 1995). The language defines the in-group (Briley 2005) and the out-group. Those who speak Luxembourgish are part of the in-group and those who do not speak the language are part of the out-group. Official documents are in French or in German. Mostly, French is used for bureaucratic issues, and German is used for the religious ceremonies. This dialect has become the discriminating element for citizenship.

In order to benefit from all of the advantages of the Luxembourgish nationality one has to be able to speak Luxembourgish. Citizenship is only awarded to people who speak Luxembourgish (Spizzo 1995). The language, therefore, provides access to the advantages and rights associated with citizenship.

Luxembourgish authorities are an example of long-term orientation; they were able to adapt and react to some of the crises in the steelmaking industry and in the banking system, always with the objective of guaranteeing stability and wealth for the people. It seems as if there was an invisible line of stability and wealth that was guaranteed throughout the centuries. Typical words for the national identity are wealth, privileges, stability through the maintenance of the attractiveness of the country compared to neighbouring countries, because of its industry, its labor market, its fiscal benefits, all key for the success of the country. Being part of this system and the feeling it gives is the glue of the country, the sense of being part of it (Spizzo 1995).

Following the description of Luxembourg and its culture, it is argued that Luxembourg's dimensions of culture are not proxies for the average values found by Hofstede in France and Germany, but rather are unique and a result of Luxembourg's language, which is also the official country language since 1984. The following hypotheses are offered:

Hypothesis 1: Native Luxembourgers scores on the PDI, UAI, IDV, MAS, LTO, IVR, MON cultural dimensions are significantly different from the scores of non-Luxembourgers in Luxembourg.

If hypothesis 1 is corroborated then the scores on Hofstede's dimension should reflect a tendency of Luxembourgish native language speakers to score differently than the scores of French, German and Foreigners in Luxembourg. The following hypothesis is offered:

Hypothesis 2: There are significant differences between Hofstede et al.'s (2010) PDI, UAI, IDV, MAS, LTO, IVR, MON cultural dimensions estimates for Luxembourg and the empirical values found in this study for Luxembourgers with Luxembourgish Nationality.

## **HUMAN RESOURCE MANAGEMENT**

Human Resources Practices have a historical background and have developed throughout the years (Armstrong 2009, Bratton and Gold 1999) and with the changing world of work (Krautand Korman 1999). Twenty years ago, Human Resources Policies were mostly related to Administration (Mahoney and Deckop 1986): salary, vacation, absence, work hours, headcount and accounting. In many companies, the accounting department was part of the Human Resources Department. Following this administrative trend, arrived a movement focused on motivation (Kuvaas and Dysvik 2009). Human Resources became centred on motivation of employees, recruiting, training, evaluation, and

recognition. More recently Human Resources (Gilley and Maycunich 2000) is driven by communication (English et al. 2007), (Bada and Madon 2006), international HR (McLean and McLean 2001), recruiting in the globalised HR world (Sparrow 2007) and networking (Tixier 2004, Slagter 2009).

Standard HRM is about recruiting and staffing best practices (Ryan et al. 2003), talent management (Tansley et al. 2007), HR administration (Mahoney and Deckop 1986), communication (Curtis et al. 1989) and e-HR (Lengnick-Hall and Lengnick-Hall 2006).

Martin and Reddington (2010) are developing a model of e-human resources, focusing on the relationship between HR strategy, e-HR goals and architectures and positive and negative e-HR outcomes in their publication "Theorizing the links between e-HR and strategic HRM: a model, case illustration and reflections." Following Scandula and Williams (2000) it's about "Research methodology in management, and about current practices, trends, and implications for future research." Collins and Clark (2003) make the link between strategic HRM practices and social networks to deduct as a result the increase of performance. Marchington (2008) sees the following topics as main HRM topics: absenteeism, job satisfaction and relational co-ordination, global HRM, job and role design, recruitment, appraisal, the HR business partner model, and the role of HR in international mergers and acquisitions. Kuvaas and Dysvik (2009) write about "Perceived investment in employee development, intrinsic motivation and work performance." Scullion et al. (2007) published "International human resource management in the 21st century: emerging themes and contemporary debates." Tixier (2004) asks "Does the evolution of the human resources practices imply the implementation of an information system?" Slagter (2009) sees "HR practices as predictors for knowledge sharing and innovative behaviour: a focus on age." HRM research also goes into strategic HRM (Mäklä et al. 2012) and Control systems that might prevent managers from unethical behaviour, because it gives them a feeling of being treated fairly (Langevin and Mendoza 2013).

## **SOCIAL NETWORKING TECHNOLOGIES**

Following Boese 2009; Cross et al. 2003; Cross and Thomas 2009, Fernandez et al. 2000, HRM standard practices and e-HRM (Martin and Reddington 2010), digital social networks like LinkedIn, Facebook (Kirkpatrick, 2010) and Twitter have revolutionised human resources practices. Google has changed the way we see our world (Auletta 2009) and changes our habits (Jarvis 2009), and the internet does modify our brain (Carr 2010). Some even wish to make the internet stop (Zittrain 2009). Due to the social technologies, we have to reconsider how we can live and win in a transformed world (Li and Bernoff 2008), and how we interact in times of Facebook (Stengel 2010), where the new digital generation grows up with naturally, contrary to the generations before them (Tapscott 2009).

Historically, Barnes (1954) was the founder of the definition of social networks and his research dates back to 1954. This study was followed by works from Rees (1966) on information networks in labour markets, and by Milgram (1967), who tested the “small world”. De Schweinetz (1932) was the forerunner of economists and sociologists who distinguished between the formal and the informal methods used to find a job. Granovetter (1973, 1985, and 1995) studied the informal methods of finding a job according to him, discovering the “forces of the weak ties”.

In more recent literature, Dodds et al. (2003) conduct an experimental study of search in global social networks. Fernandez et al. (2000) study the networks at a phone centre. Godin (2008) studies people’s behaviour in ‘tribes’.

Sammartino McPherson (2009) describes Tim Berners-Lee (2000) who imagined a world wide web, encouraging social interactions, giving people without huge technical competences and knowledge the possibility to publish online content, free of charge, unlimited in space and time and the opportunity to interact with others.

The research paper from Hasgall and Shoham (2007) is “Digital social network and the complex organizational systems”, where social networks in organisations are viewed as a shared knowledge system backed by management.

An interesting article is to be found from Jones (2010) about how to use Twitter, Facebook and LinkedIn in recruitment. Boese (2009) writes about standard HRM practices and social network analysis.

In the view of Shirky (2009 and 2010) people go through different stages of “Gin, Television and Social Surplus”. Firstly, they meet in pubs for a drink and later they spent their free time watching TV. Next, they reach the phase where they like to share and communicate, to produce and not only to consume. Following Tapscott (2009) the reluctance for the use of new technologies lies within the generation gap. He describes the “Net-Generation” as learners who are rethinking talent and management, and who are in networks and in families.

### Hypothesis 3:

Hypothesis 3: HR specialists in Luxembourg are reluctant to utilise new social networking technologies due to their specific cultural identity. As a result, the practical techniques used related to recruiting, integration, evolution, training, talent management and the evaluation of employees remain largely unchanged. This hypothesis is based upon on an assumption that needs to be justified. What causes this reluctance? Specific cultural facts, differences in nationalities, or age, or gender or other facts (Fisher and Howell 2004, Reddington et al. 2010)? What has been the extent of the use of new social networking technologies in Luxembourg? Why have human resources specialists in

Luxembourg been reluctant to utilise new social networking technologies? How do they do HRM? How to make them use the new technologies?

My work engages in debates resulting from my review of HRM Practices in general, based on relevant literature, ERP (Lengnick-Hall and Lengnick-Hall 2006) and theory in comparison to the practices currently in use. My work will show that Luxembourg is different from other markets, confirming Greenwald and Kahn's (2005) "All Strategy is Local". Luxembourg has a specific work environment that is not in-line with the theories of the globalised world (IPSE 2010, AmCham 2010).

- Which standard HRM practices (Kuvaas and Dysvik 2009; Marchington 2008) in recruiting, evaluation, information gathering, training, outplacement were typically used in the past by Luxembourg companies and are still used?
- When used, which social networking technologies do companies prefer and how does their use impact performance (Collins and Clark 2003)? A look into the past and into the future of Networking in Luxembourg.
- Is the local use of these Social Networking Technologies affected by cultural specificities (McLean and Campbell 2003), (Scullion et al. 2007) or age (Tapscot 2009)? What is the impact of the specific cultural identity and language (Jameson 2007)?

## METHODS

### *Respondents*

- Collecting primary data via Participant Observation, following Saunders et al. (2009), Strauss and Corbin (2008), Taylor and Bogdan (1998), Wilson (2010): participation at seminars, conferences, meetings, dinners, breakfasts, networking events, organised by: e.g. hrone, POG, AmCham, Chamber of Commerce, Sacred Heart University, IGS, Recruitment Matters (<http://www.recruitmentmatters.com/news/newsletter/index.html>), in e.g. Hotel Sofitel, Hotel Hilton, BGL BNP Paribas, Banque de Luxembourg, Dexia...
- Collecting primary data via Face-to-Face Interviews and questionnaires with e.g. Luxair, HSBC, Deloitte, eurosript, Lindab, RTL, European Investment Bank, ZithaKlinik, Ernst & Young, Banque Privée Edmond de Rothschild, Cactus, Delphi, fast, aims, Rita Knott Consulting, Thierry Ernst Consulting, Ville de Luxembourg, Municipality of Sanem, University of Luxembourg, Ketterthill, Soludec, SES Astra, John Zink, Paul Würth, Centre de Recherche Public Henri Tudor (2008), Office des Publications de l' Union Européenne, KPMG, Oostvogels, Equity Fund among others, in total 41 companies. Case study with ZithaKlinik and Centre de Recherche Public Henri Tudor

- Collecting primary data via Hofstede's original questionnaires in one company: Lindab Buildings, Diekirch.

### *Instruments*

- My questionnaire has been used in paper and online to enquire about HRM practices and the impact of digital social networks on these HRM practices in Luxembourg and Hofstede's (2001) original questionnaire has been used to measure his cultural dimensions. The questions concerning HRM practices are: (1) 'What means is your company using in recruiting?' (2) 'Which digital social networks does your company use?' (3) During the recruitment process, how does your company gather information about a candidate?' (4) After the recruitment process, how does your company gather information about its employees?' (5) 'What are the advantages of digital social networks?' (6) 'What are the disadvantages of digital social networks?' (7) 'Did the use of digital social networks change the role of the human resource specialists in Luxembourg? If yes, how? If not, why not?' (8) 'Do you see any risks, dangers while using digital social networks in the human resource practices of recruiting, evaluation, evolution, training....' (9) 'Which internet pages are accessible in your company? (is Facebook accessible?' (10) 'How is networking mainly done in Luxembourg?'
- Excel is used to come up with the graphs resulting from the above questions.
- Nationality does not always correspond to native language and therefore questionnaires were distributed in English, French and German.
- A pilot study was conducted to pre-test the questionnaire's face validity.
- As ethical concerns may emerge at all stages of the research (Elms et al. 2010), precautions have been taken to ensure confidentiality. Questionnaires have been anonymous. Equity in treatment regardless of gender, race or nationality was always guaranteed (Robertson 2008).
- Hofstede's (2001) original questionnaire has been used to measure his cultural dimensions. Questions have been added to measure respondents' happiness and background information.
- After the initial screening and cleaning of the collected data, Hofstede's (2010) original formula, were used to calculate Hofstede's cultural dimensions **Power Distance Indicator (PDI), Uncertainty Avoidance Indicator (UAI), Individualism-Collectivism (IDV), Masculinity-Femininity (MAS), Long-Term Orientation (LTO), Indulgence Versus Restraint (IVR, Monumentalism (MON))**. Pearson Correlations were calculated among all variables.
- One question was used to measure Happiness: "Are you a happy person always, usually, sometimes, seldom, or never?"

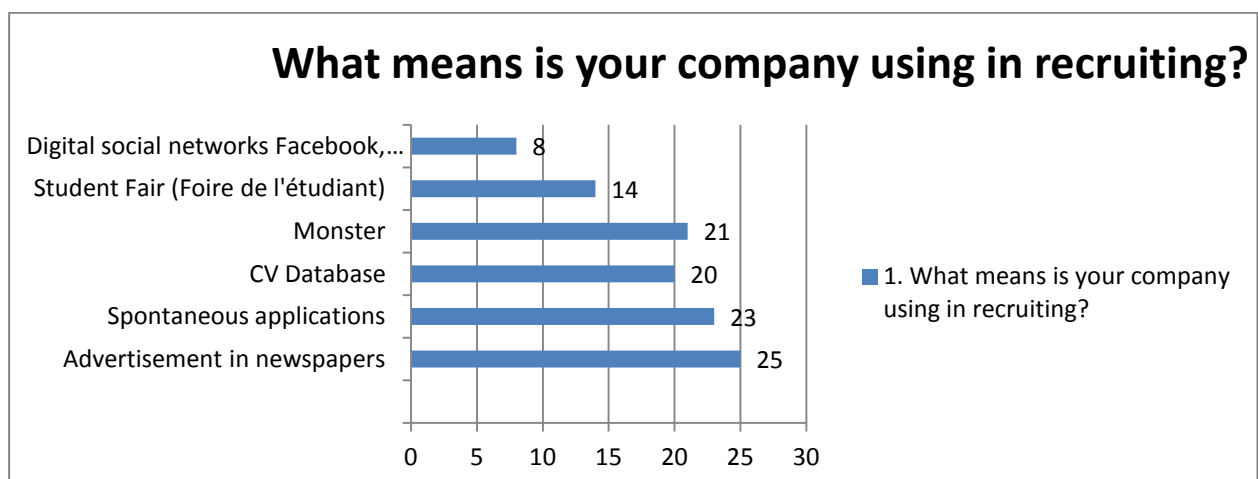
- The following Demographic data served as **control variables**: native language, command of other languages, gender, age, hierarchical rank and education. Age was measured in an eight-point scale, educational background and rank were measured on a seven-point scale.

## RESULTS

Human Resource Managers in Luxembourg are reluctant to use digital social networks, due to their cultural identity. Human Resources practices have a historical and cultural background and has developed throughout the years. The recruitment sector has been revolutionised by Facebook, LinkedIn, Xing, Twitter and Blogger, but not so in Luxembourg. This is given by the high score in 'Uncertainty Avoidance' following Hofstede.

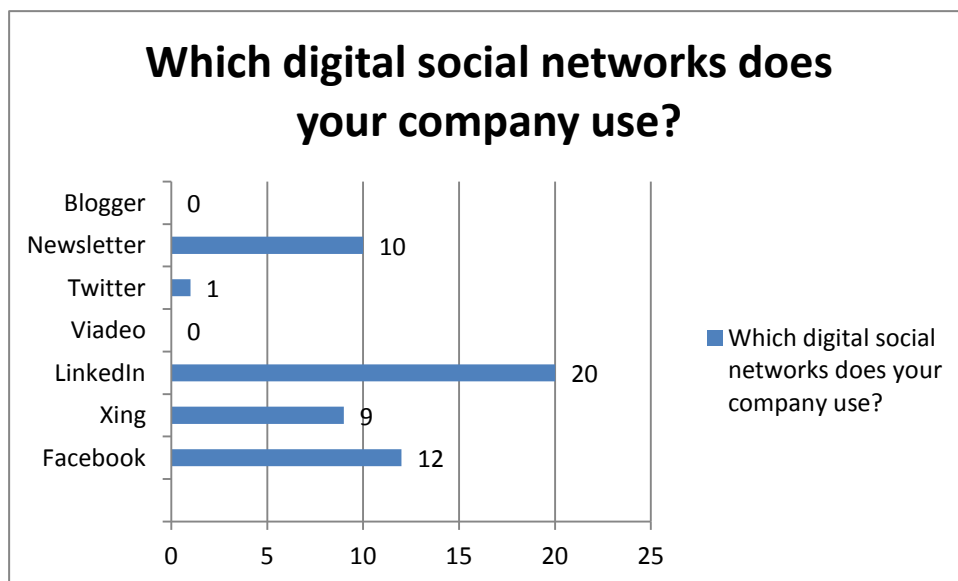
The means used in recruiting are mainly advertisement in newspapers (25) and spontaneous applications (23). Digital social networks (8) are far the less used mean in recruiting, see the following table.

**Table 1**



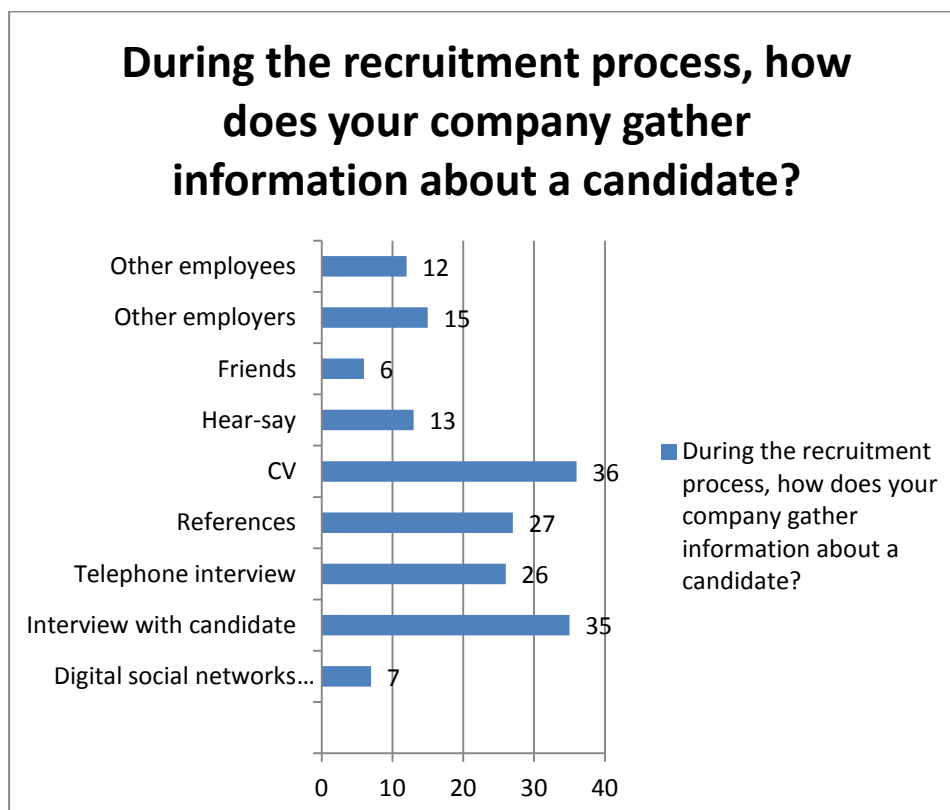
When companies use digital social networks, they mainly use LinkedIn (20), followed by Facebook (12), Newsletter (10), and Xing (9), see the following table.

Table 2



During the recruitment process companies gather information about the candidate using mainly the CV (36) and the Interview with the candidate (35). Friends (6) and digital social networks (7) are the least used means, see the following table.

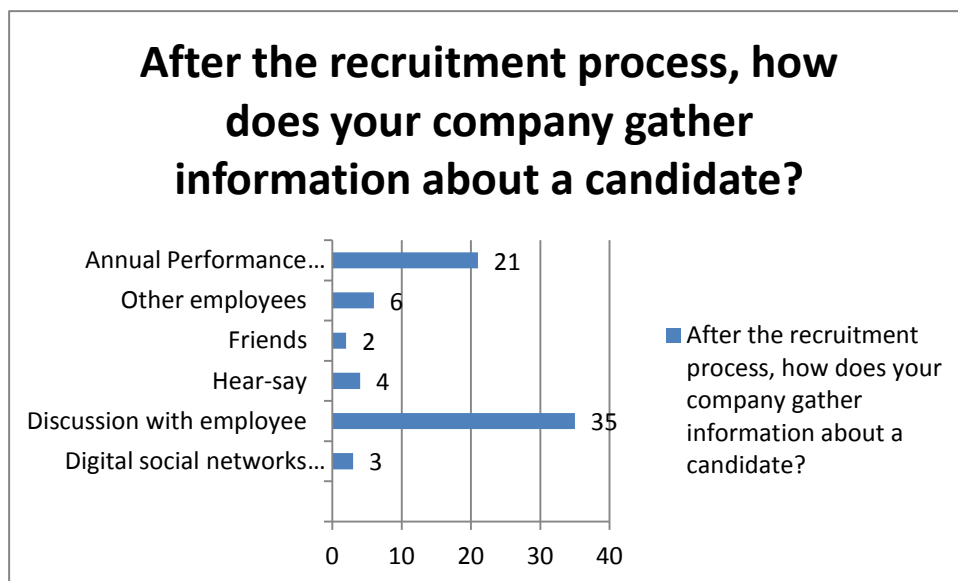
Table 3



After the recruitment process, companies gather information about an employee mainly through discussion with the employee (35) and the annual performance evaluation (21). Friends (2) and digital social networks (3) are the least used means, see the following table.

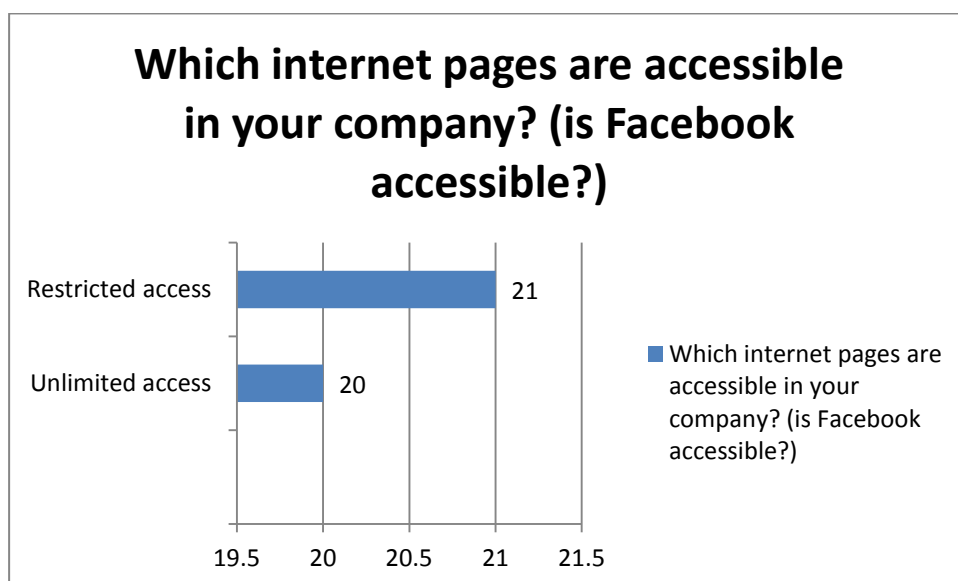


Table 4



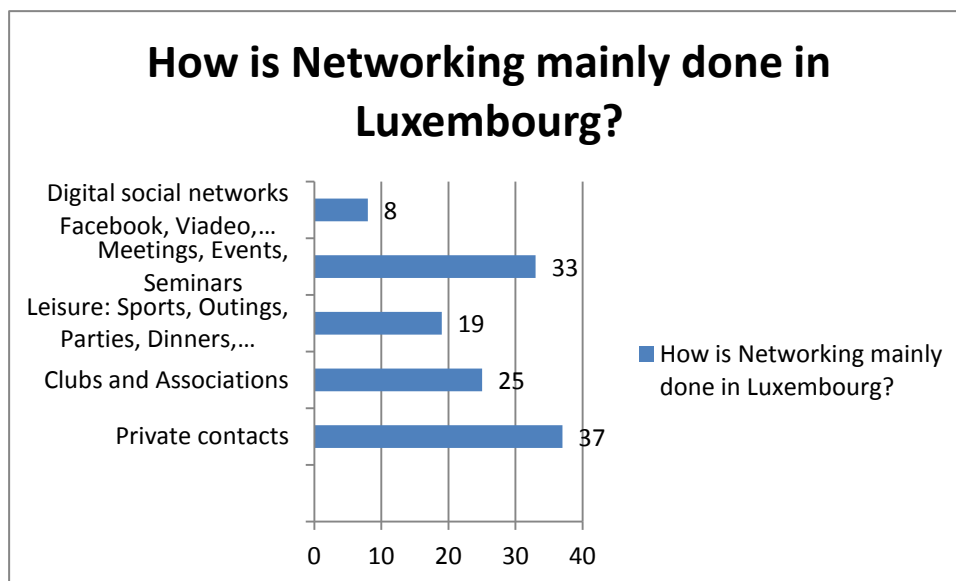
Which internet pages are accessible in a company are shown in table 5. This shows that most companies have restricted their internet access (21), compared to unlimited access (20).

Table 5



How networking is mainly done in Luxembourg is shown in table 5. This shows that most networking is done through private contacts, (37), followed by meetings, events, seminars (33), clubs and associations (25) and leisure (19).

Table 6



**What are the advantages of Digital Social Networks? was answered as follows:**

- Growing its network, connecting to former colleagues or friends where you lost contact
- Increases network, spreads brand awareness, no cost
- (Re) connecting to people; discover other social network forms. Contacting people without facing or calling them. Timeless networking (anytime in day and night)
- It can help to find someone who can answer you a specific question. Especially LinkedIn is very useful there
- The world just got smaller!
- Easy to use and to find information you need
- Quickly found information
- It gives you a first impression to be confirmed or not
- I have 2 daughters: 24 and 22 years old who are on Facebook, with the style of live of the students' live, Erasmus contacts, their way of keeping contact in the entire world, with students they didn't see for some months. To find back friends that one wishes to find back. To exchange information.
- Faster creation of a network, widening of one's network
- Broad database, normally quite actual information
- Big space of information, fast work, easy communication
- Accessibility, information available quicker
- Being able to reach fast a number of people whom I couldn't contact by any other means. Our site: "Your future at Deloitte": We find them at their homes, they don't need to move. The number of people! The different profile of the people, their diversity, the entire world, the

world is getting very small.

- A lot of information is available. Fast.
- Contact passive candidates.
- Contact candidates out of location.

**In your opinion, what are the disadvantages of Digital Social Networks? was answered as follows:**

- None
- Low quality
- If you allow too many details to be shown to public users there might be a lack in privacy
- People may lie about their experience, job title...
- Lack of personal touch
- Very little usage potential for finding the right staff. People tend to exaggerate their skills and don't talk about deficiencies. Endorsements might help a bit, but when you look at them they don't seem to be more than a friendly turn.
- It's not always easy to control if information found is trustfully
- No confidentiality
- No control on distribution of information
- Private info, not always accurate
- The content is not trustful
- It is an advantage and a disadvantage: fast communication, a lot of information
- The contact has to be private, personal. I don't want to make public what is private. It's the illusion of transparency. In the world of the companies, one has to be transparent, that means invisible. Therefore one doesn't say the truth anymore.
- To share too much information with everyone. The 1<sup>st</sup> degree of this kind of network.
- Not confidential enough, sometimes too transparent
- If not used properly, may lead to abuse. Private data access. Information posted may not be 100% accurate
- One can create a profile that isn't true. One can create an identity without being it. As recruiter one tries to get known. You have to control the posts, not to allow dialogues politically not correct. One has to manage this every day.
- I am not really up to date to reply to this question.
- Information is not as complete as a CV.

**Do you see any risks, dangers while using Digital Social Networks? was answered as follows:**

- Lowering of Quality
- No – Which ones?
- We talk about the professional environment, right? Then I don't see many risks. The situation is different of course for tools like Facebook etc where people show pictures that the world shouldn't see and that are impossible to delete.
- The main risk is that it is so easy to use / make contact that there is a temptation to leave "face-to-face"-contact by side
- See disadvantages
- Preservation of private life
- Of course, there are risks associated by using DSN but it doesn't affect on recruitment process
- Yes, it can not be your only resource.
- This mix of private life – professional life. Facebook has a non-stop memory. You cannot delete the memory of Facebook. Even if I have nothing to hide, I don't want to show it to everyone.
- The limits of the network: "ok, we are linked, yes, and what now?" The weak border between the private and the professional.
- Reliability of information, respect of personal data, standard demand driven streamlining of data, over-simplification of search = interesting profiles not taken into account
- Risks in confidentiality. Risks of copies. Risks of discretion.
- Yes: reputation. Information is spread fast, without control. Not to be deleted: it is on the net, it will stay there forever.
- Privacy. Not suitable photos.
- Approach people not matching our requirements/criteria.
- No, very helpful too, especially for HR people

The below correlation matrix shows that Luxembourgers are characterised for being long term oriented, they indulge in life, they are uncertainty avoidant, and they are happy.

**Table 7****Correlations among all variables (N=134)**

	PDI	UAI	IDV	MAS	LTO	IVR	MON	HAPPY	GENDER	AGE	EDUCATION
PDI	-										
UAI	-.021	-									
IDV	.135	-.011	-								
MAS	.206*	-.060	.517**	-							
LTO	.138	.059	.030	.000	-						
IVR	.031	.043	.318**	.272**	.042	-					
MON	.068	.023	.245**	.129	-.089	.244**	-				
HAPPY	.038	.160	.045	.014	.268**	.293**	.001	-			
GENDER	-.030	.073	-.041	-.012	.004	-.029	-.105	.029	-		
AGE	-.117	.031	-.059	.022	-.076	.108	-.312**	.040	-.128	-	
EDUCATION	.037	-.155	.106	.094	.119	.112	.060	.082	.120	-.025	-
RANK	.230**	.210*	-.001	.016	.080	-.043	.090	.006	.162	-.490**	-.084

\*  $p < .05$ ; \*\*  $p < .001$

The figure above closes this chapter on data analysis. The next paragraph is on limitations of this study.

## LIMITATIONS

Thus, the comparatively small sample size, the data collected only in one company, and the lack of a strong theory to link culture and happiness, could all have biased the results and their interpretations. Yet, it is likely that scores that were found to be significant in a small sample are likely to be made even more significant in a larger sample. Also, focusing on one small country and one company has provided the opportunity to indirectly control for many exogenous variables that otherwise would have the potential to 'contaminate' the relationships between the variables. The next paragraph is on discussion and implications.

## DISCUSSION AND IMPLICATIONS

The purpose of this study was to explain, in this world of global mobility, the cultural and language characteristics of Luxembourg that may influence the tendency of human resources specialists in Luxembourg to utilise new social networking technologies such as LinkedIn, Viadeo, Xing, Facebook and Twitter. Increasingly global mobility (Tahvanainen et al. 2005), more collaboration across borders (Hinds et al. 2011), strategy in global staffing (Collings et al. 2007), complexity, struggling the work-family balance (Shaffer et al. 2001), trust building (Harvey et al. 2011), career consequences (Shaffer et al. 2012) this research is interesting for expats, their spouses and family coming for work to the Grand Duchy of Luxembourg, trying to cope with the cultural and linguistic specificities. Tharenou (2005) finds out the main reasons why people accept expat work: money, professional development and challenging content; and why people won't accept expat work: family commitments and disruption.

The study is the result of the link between literature on standard HRM practices, e-HRM (Martin and Reddington 2010) and practice in Luxembourg business life (IPSE 2010, AmCham 2010).

It provides an answer for HRM specialists to the question: "How to be successful in multicultural, international Luxembourg?" Cultural identity, intercultural communication, language and international business are discussed by Jameson (2007). How to do business with social networks in international trade (Rauch 2001)?

HR Managers will be made aware of the usefulness of digital social networks and may potentially implement them into their current HRM Practices (Guler and Guillen 2010).

The aim is to analyse Luxembourg and its way of business while continuing to evolve with changing technologies. The questions discussed go deep into the analysis of everyday business life, cultural identity, language and international trade in Luxembourg (Horner 2009, Kingsley 2009, Davis 2009). One must genuinely accept and understand the meaning of "Mir wëlle bleiwe wat mir sinn". If one does not make an effort to integrate into Luxembourg's specific business culture, success in Luxembourg may never be possible (Background Notes 2006; Neefs and Laures 2010).

By employing a unique sample that includes respondents who speak French, German and Luxembourgish in France, Germany and Luxembourg this study has managed to corroborate the notion that language is a good identifier of culture. While scores in this study for French and Germans in France and Germany resemble to a great extent Hofstede's scores for these two countries, and while scores in this study resemble Hofstede's estimates for Luxembourgers who speak any official language of the Grand Duchy, Hofstede's estimates varied to a great extent from this study scores for Luxembourgers who command Luxembourgish as their mother tongue. This is a unique testimony for the relationships between language and culture, while controlling for country.

Some proven relationships between culture, represented by such dimensions as Long Term Orientation, and high level of Indulgence, and happiness, have been corroborated in this study. It is self evident that two measures, that measure similar concepts, namely, Indulgence on a national level and Happiness on the individual's level should be related to each other. The Grand Duchy's political, social and economic stability allows people to plan for the long term, thereby providing support for people's need for security and life predictability. It is possible that this is the key for the relationship between Long Term Orientation and Happiness in Luxembourg found in this study. To validate this argument it is worth citing Hofstede himself: "At 70 Luxembourg has a high score on uncertainty avoidance which means that as a nation they are quiet reluctant to test unknown territories. Security is a key word in Luxembourg; there is not one activity which is not depending on some sort of security control from authorities; from banker's money to safety exits in a restaurant. It makes the live in Luxembourg very safe, but some would argue a bit boring. New ideas, new methods, new management techniques must first be proven to work in other countries in order to be accepted in Luxembourg. Historically more "farmers" than "traders" the inhabitants kept that good old "common sense" made of cautiousness which has proven to be profitable for a country who managed not to be at war since the Napoleonic time! (<http://geert-hofstede.com/luxemburg.html>). Since this is the first time that such efforts are being made to find the relationship between happiness and culture, those results should be taken cautiously.

Not surprisingly, Indulgence was found to be significantly related to Individualism and Masculinity, two concepts that are part of Indulgence definition. The significant relationship between Indulgence and Monumentalism, and the significant negative relationship between Monumentalism and age, may indicate that younger people tend to be more individualistic, monumental and, therefore, happy. This hypothesis could only be corroborated by enlarging the sample size, a fact which would allow conducting more sophisticated statistics than mere correlation.

This research could be used by expat-Managers, HR professionals, recruiters, head-hunters and HR directors in Luxembourg and globally wishing to collaborate with Luxembourg, who would like to consider evolving technologies and their potential use in Luxembourg's business environment with its cultural identity (Jameson 2007) in international trade (Rauch 2001).

## **FUTURE RESEARCH**

Future studies could focus on strategies and challenges of global human resource management, researched by Ananthram and Chan (2013) concentrating on the challenges they enumerate: degree of standardisation of HR, foreign industrial relations, labour laws, time zones, cross cultural differences and cultural sensitivity, leadership development, communication, expatriates' adjustments,

inflexibility and work-family balance (Ananthram and Chan 2013), and evolve further into the two branches of the current research: first, focus on the relationship between language and culture and empirically validate it for other languages. Thus, in-country studies comparing the dimensions of culture could be conducted in places such as Switzerland that contains four official languages, in Germany where a minority command Turkish as a mother tongue, or even in China where the people of the south command Mandarin while the people of the north command Cantonese, and yet they all belong to the same Hun group. A second possible avenue for future research could focus on the influence of culture over people's happiness. Since a new cultural dimension, namely Indulgence, is now available, happiness could be measured at both the national culture level and the individual's state of mind. Expansion of the current research model and the use of its instruments in a number of other organizations and countries have the potential to strengthen the validity of the current research findings by generalizing them over new populations, and by making them more specific. In any case, be it the study of language and culture or culture and happiness, larger samples would allow for the application of more sophisticated statistical methods, such as regression models, that would allow the exploration of the relative influence of language over culture, and cultural dimensions over happiness. Thus, despite its limitations, the current study has paved the way for major replications and refinements and the substantiation of very important hypotheses that have theoretical as well as practical implications for researchers, managers and others, across the globe.

In this world, where millions of people migrate from one country to another, and where communities become greatly diverse, the ability of the use of countries' national boundaries as the fault lines that define culture dimensions, to explain and predict management and other societal behaviours, is very limited. Students of culture should make it their habit to measure social units' cultural dimensions by varying the respondents across languages, and maybe even across dialects, rather than across common national boundaries.

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**WHY NETWORKS, A SHARED LANGUAGE AND STORYTELLING  
HELP ORGANISATIONAL ADVANTAGE IN MICROFOUNDATIONS –  
INTERNATIONAL ENVIRONMENTS AND STRATEGIC HUMAN  
RESOURCE MANAGEMENT**

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**ABSTRACT**

This research, based on Nahapiet and Ghoshal (1998), investigates why networks, a shared language and storytelling help organisational advantage in microfoundations in international environments, especially in Strategic Human Resource Management (SHRM). The first part of this paper is dedicated to an in-depth literature review. In the second part, the research method is explained: survey questionnaires were developed based on Nahapiet and Ghoshal (1998), translated from English to French and German and distributed. The questionnaire consisted of 28 closed questions on a five-point Likert scale and two open questions regarding networks in person or digital networks, producing many direct quotes from the respondents. A total of 253 questionnaires were collected, out of which 246 were usable. One interview was conducted for the purpose of this research, with the objective to validate the results from the questionnaires, but it was not included into this paper. Further research could focus on qualitative research methods, as well as the influence of new media and age. In the third part, the findings of this research are presented: Networks provide access to information, are easily accessible, flexible and efficient, diverse, they are fast, cheap, “Who you know” determines “What you know”, there are obligations, norms, and expectations within a network, and there are issues with trust and confidentiality in networks. Some HR managers have a preference for networks in person compared to digital networks; their respective arguments are presented. A shared language is used as identifier as it defines the in-group and distinguishes from the out-group, is important in social relations, enables people to discuss and exchange information, to ask questions, to conduct business, creates group-specific communication codes, enables the combining of information, the development of new concepts and the creation of new knowledge, and influences our perception. If people do not speak the language, they are kept apart and have restricted or no access to information. Storytelling is used to show and transmit values, norms, and culture, to share knowledge and understanding, it is useful in education and training, it helps to communicate quickly, naturally, clearly; with storytelling one can focus on a vision and plan the future, solve

problems and conflicts, inspire continuous innovation, manage change, and make decisions. It is proposed that networking, in person and in digital form, a shared language as identifier and storytelling are capabilities for shaping the future and success of microfoundations in international environments. Conclusion and discussion, limitations, further research, and references follow.

**Keywords:** *Strategic Human Resource Management (SHRM), networks, storytelling, language as identifier, international entrepreneurship, microfoundations*

## INTRODUCTION

This research, based on Nahapiet and Ghoshal (1998), investigates why networks, a shared language and storytelling help organisational advantage in microfoundations in international environments, especially in Strategic Human Resource Management (SHRM). Survey questionnaires, developed by the author based on Nahapiet and Ghoshal (1998) and consisting of 28 closed and 2 open questions were used to determine the extent of influence of success in microfoundations in international environments. 246 usable questionnaires were collected and one interview was conducted, to validate the findings from the questionnaires. However, the interview was not included into this paper. Practical advice is offered to HR managers of how to use these means for organizational advantage in microfoundations in international environments.

The literature review that follows this introduction concentrates first on microfoundations, second on Human Resource Management, globalisation and e-HRM, third on networks, forth on digital social networks, fifth on language as identifier, and finally on storytelling in organisations. The literature review is followed by the methods chapter [[are you sure “part” is the right word?]]. The results follow the methods chapter. The findings to the research questions are presented: Why do you think networks, a shared language and storytelling help organisational advantage in microfoundations? The additional research question is: “Do you prefer networks in person to digital networks like Facebook, LinkedIn, and Twitter?” Findings are presented, issues with networks in person and with digital networks are shown, and reasons why respondents would prefer networks in person or digital networks are demonstrated. Conclusion and discussion, research limitations, and future research follow.

## LITERATURE REVIEW

## MICROFOUNDATIONS

Microfoundations have gained in influence in strategic management over the last years. Individuals have a basic influence on strategic management, is the argument. Strategic human resource management is one field of research interests besides economics, psychology, sociology, motivation, cognition, marketing, strategy, entrepreneurship, communication, and others. Foss (2010, p. 12) defines microfoundations as “foundations of something, namely aggregate concepts and/or relations between aggregate variables”, ... it is “an instance of reductionism”, ... “of how individual decision-making influence firm behaviour”. The discussion between “methodological individualism” versus “methodological collectivism” goes “whether individuals (“micro”) or social collectives (“macro”) have explanatory primacy”.

The interest in the theory of the firm started nearly 40 years ago now. The theory of firm scholars focusses on the causes of “organisational advantage”, contrary to its failure (Nahapiet and Ghoshal, 1998, p. 242). They include trust, networks, network ties, network configuration, shared narratives and shared language and codes in their research of the organisational advantage. They see the roots of intellectual capital in the social relations and structures - “who knows who” affects “what you know”. In strategy, Porter (1996) was the pioneer, initiating a loop of decade-long discussion and theory on business structures, procedures and performance, slowing down any positive development (Teece, 2007). Teece says (2007, p. 510) “Fortunately, the existing literature on strategy, innovation, and organization and the new literature on dynamic capabilities have identified a panoply of processes and routines that can be recognized as providing certain microfoundations for dynamic capabilities.” He says that new opportunities are sensed through scanning, creation, learning, and interpretive activity. “Opportunities get detected by the enterprise because of two classes of factors. First, as stressed by Kirzner (1973), entrepreneurs can have differential access to existing information. Second, new information and new knowledge (exogenous or endogenous) can create opportunities, as emphasized by Schumpeter (1934)”.

This chapter [[you said “part” before]] finishes with the call of Teece et al. (1997, p. 530): “Researchers in the field of strategy need to join forces with researchers in the fields of innovation, manufacturing, and organizational behaviour and business history”. The next chapter is on HRM with a focus on today’s challenges, globalisation, and e-HRM.

## HUMAN RESOURCE MANAGEMENT, GLOBALISATION AND E-HRM

HR practices have developed throughout the years (Armstrong, 2009) and with the changing world of work (Scholz and Böhm, 2008). Twenty years ago, HR practices were mostly related to administrative issues such as salary, vacation, absence, work hours, headcount and accounting. In many companies,

the accounting department was part of the HR department. Following this administrative trend a movement that focused on employees' motivation, recruitment, training, evaluation, talent management and recognition (Kuvaas and Dysvik, 2009).

More recently HRM is driven by communication, international HR, Strategic HRM, global HRM and recruitment in the globalised world, migration and geographical (im)mobility and networking and e-HRM (Stone and Dulebohn, 2013).

Rising staff mobility, including short-term international assignments in multinational companies and transfers, commuters, as well as rotational, contractual and virtual assignments, brings increasing complexity, fragmentation of employees' careers, the taking on of responsibilities and encountering challenges never thought of previously (Shaffer, 2001, 2012), increasing networking, and e-HRM. e-HRM influences all HR activities and their usage, through cost reduction, decision-making, IT system, and IT security. e-HRM focuses on the relationship between HR strategy, e-HR goals and architectures and positive and negative e-HR outcomes (Martin and Reddington, 2010). e-HRM influences human resource planning, recruitment, selection, performance management, work flow, training, compensation, and performance cost reduction, strategic HRM (Collins and Clark, 2003; Porter, 1996), change in usage, including training, especially e-learning, decision-making, and information systems combined with IT security. The next chapter is on networks with a focus on digital social networks.

## NETWORKS

Networks provide access to resources (Nahapiet and Ghoshal, 1998, p. 246), networks are an important source and determine information benefits. Networks - "Who you know" determine "What you know". There are three forms of information benefits: access, timing and referrals. Networks provide efficient screening and distribution of information and knowledge. Networks allow speed in getting the right information. Networks allow people in the network the opportunity to provide, combine, exchange information and also give referrals with the information. Nahapiet and Ghoshal (1998, p. 252) state this reputational endorsement influences the value of the information.

Networks come in different forms, either in person or in digital form. Granovetter (1973) identified the role of the "loose ties" in information exchange in networks. These ties allow the transmission of information. The network structure depends on its density, connectivity, hierarchy, flexibility and ease of information exchange and the accessibility for the network members to the information (Nahapiet and Ghoshal, 1998, p. 252). The lower costs of accessing information through networks, especially through digital networks, are one of the advantages, besides the diversity and efficiency of the network information structure.



## DIGITAL SOCIAL NETWORKS

Digital social networks like LinkedIn, Facebook (Kirkpatrick, 2010) and Twitter have revolutionised human resources practices (Cross and Thomas, 2009). Google has changed the way we see our world and our habits (Auletta, 2009), and the internet has modified our brain (Carr, 2010). Some even wish to stop the use of the internet (Zittrain, 2009). Due to the social networking technologies, we have to reconsider how we can live and win in a transformed world (Li and Bernoff, 2008), and how we interact in times of Facebook (Stengel, 2010), where the new digital generation of digital natives grows up, contrary to the generations before them. Tapscott (2009) has identified the reluctance to use new technologies as a result of the generation gap. He describes the “Net-Generation” as learners who are rethinking talent and management, and who are in networks and in families.

Social networks in organisations are viewed as a shared knowledge system backed by management, as standard HRM practices and social network analysis (Boese, 2009), and used especially in recruitment (Jones, 2010).

“The internet is among the few things humans have built they truly don’t understand. The internet is the largest experiment of anarchy in the history” (Schmidt and Cohen, 2013, p. 3). “Think of all the websites visited, ... of every job found, ... consider what the lack of top-down controls allow: the online scams, the bullying campaigns, the hate-group websites and the terrorist chat rooms. Through the power of technology, age-old obstacles to human interaction, like geography, language and limited information, are falling” (Schmidt and Cohen, 2013, p. 3). “Communication technologies will continue to change our institutions from within and without” (Schmidt and Cohen, 2013, p. 11). The benefits of networks are efficiency, flexibility, accessibility, diversity of information, low cost, high speed, “Who you know” determines “What you know”. Issues with digital networks relate to confidentiality, obligations, norms, and expectations within a network, the trustworthiness of the network members and the information provided. The next chapter is on language and especially on language as identifier.

## LANGUAGE AS IDENTIFIER

Language is used as identifier. It is used to determine the “in-group” and to distinguish it from the “out-group” (Briley et al., 2005, p. 353). The ability of bi-cultural people of frame switching through language has been researched by Briley et al. (2005) and Hong et al. (2000). Language plays an important role in social relations, in exchange, sharing of context, transfer of information, conception, perception and knowledge creation (Nahapiet and Ghoshal, 1998, p. 253). Nahapiet and Ghoshal (1998, p. 253) suggest a shared language has three ways of influence on exchange: first on social relations, second on perception, and third enhances the combination capabilities. For the first point, a

shared language enables people to “discuss and exchange information, ask questions, and conduct business in society”. In cases where people do not speak the language, they are kept apart and have restricted or no access to this information. This is because first, a shared language is linked to our social relations, it is about “who knows who” – “who knows what” – “who speaks what (language)”. Second, a shared language is important for the development of new concepts, of new knowledge. The shared communication codes are important for the combination and transmitting of information. Third, a shared language influences our ways of perception. Our awareness is influenced by our language.

Benefits of a shared language are “defines the in-group, distinguishes from the out-group”, creates group-specific communication codes, is important in social relations, is used as identifier, enables the development of new concepts and creating new knowledge, enables the combining of information, enables people to discuss and exchange information, to ask questions, to conduct business, influences our perception, and if people do not speak the language, they are kept apart and have restricted or no access to this information. The next chapter is on storytelling, more precisely the use of storytelling in organisations and its benefits.

## **STORYTELLING IN ORGANISATIONS**

Storytelling is used in organisations for many different purposes. These range from communicating a complex idea to solving problems, making decisions, planning for the future, (Denning, 2011) and training (Davidson, 2004). It is also used to state the organisation’s norms, values and the culture, to disseminate knowledge, to manage change and to focus on a vision (Boyce, 1996; Boje, 2008).

Following Denning (2004, p. 44, p 150-153) the objectives of storytelling in organisations are 1) to communicate a complex idea and to spark action, 2) to communicate who you are, 3) to transmit values, 4) to get people working together in a group or community 5) to tame the grapevine or neutralize negative gossip, 6) to share information and knowledge, 7) to lead people into the future. For Denning (2011) and Clark (2004), storytelling is a tool to achieve business purposes.

There are a number of different approaches to developing profiles to help people plan their future work with storytelling. Some approaches examine the high-value forms of organisational storytelling: communicate complex ideas, communicate who you are, transmit values, promote team work, stop rumours, share information and knowledge and lead people into the future (Denning, 2011; Sharp, 2000), to manage conflicts, address issues, resolve conflict and face challenges, and to lead more efficiently (Friedman, 2009). This is how Coca-Cola uses stories to build stronger emotional bonds, for example with the “Happiness Factory”.

Stories are beneficial for organisations, they are mainly used to inspire success. By telling stories, there is a connection with the audience, storytelling makes the audience involved and excited, which may not have been the case otherwise. It helps the younger generation to learn, to access and to connect with tradition. Stories are beneficial in education and learning (Davidson, 2004). The internet is used to tell stories (Paula Kahumbu, interviewed by David McKenzie. (<http://edition.cnn.com/2012/10/01/world/africa/paula-kahumbu-kenya-lions/index.html?eref=edition>). Stories tend to stick in the mind longer than abstract ideas alone (Heath and Heath, 2008).

Scholz and Böhm (2008) investigate human resource research in Europe with the objective of avoiding fatal and expensive mistakes. Valid for Europe, this is even truer for the world. Information on the different socio-economic, political and cultural conditions in the world could contribute to better understanding between counterparts. Personality, culture and human nature are the three levels of uniqueness in mental programming. Stories, again, could help prevent misunderstandings between cultures.

## **METHOD**

Survey questionnaires were used to determine the extent to which networks, a shared language and storytelling influence the success of microfoundations in international environments. A standardised questionnaire was developed, based on Nahapiet and Ghoshal (1998), consisting of 28 closed questions in form of a five-point Likert scale and 2 open questions, producing many direct quotes from the respondents. The questionnaire consisted of five parts: (1) Assessment of the organisational advantage of networks, (2) of a shared language, (3) of storytelling, (4) two open questions on the preference of 'networks in person' to 'digital networks', (5) questions on personal data such as job, industry, gender, age, native language, other languages spoken, nationality, birth nationality, residency, origin, and education. The original English version was translated by native speakers into French and German and back-translated into English for validity check. Over the summer of 2013, they were distributed to business people in Luxembourg and Germany and to participants at different academic conferences. This explains the high percentage of doctorates in the sample. One interview was conducted to confirm the validity of the questionnaire's results, but it was not further evaluated for this research. Future research is necessary to do so.

## **RESULTS**

The results of the questionnaire are shown in the following chapter. A five-point Likert scale was used and average, median, minimum and maximum per question were calculated.

The first question: **“Why do you think Networks help organisational advantage?”** was answered as follows: the highest average score was for the answer “Provide access to information” with an average of 4.29 out of 5. The second highest score went to the answer “Accessibility, easy access to information, flexibility and efficiency” with an average of 4.01 out of 5. The third highest score was to the answer “High Speed (Timing) to this information” with 3.94 out of 5. “Low cost of access to information scored with 3.83 out of 5 came in fourth place. “Who you know” determines “What you know” (brings together information from different sources and disciplines)” scored 3.74, “Diversity of information” scored 3.69, “There are obligations, norms, and expectations within a network” scored 3.57, “Trust (trustworthiness of the network members and the information provided)” scored 3.46, and last place took “Confidentiality” with 3.06 out of 5. The median for nearly all questions was 4, although the median score for “Trust” was 3.5 and “Confidentiality” was 3. The current discussion on confidentiality, espionage, listening and recording of all digital information finds its confirmation here. Minimum was 1 and maximum was 5 for all responses.

The second question: **“Why do you think a shared language helps organisational advantage?”** was answered as follows: The highest average score was for the answer “A shared language is important in social relations” with a score of 4.24 out of 5. The second highest score went to the answer “Enables people to discuss and exchange information, to ask questions, to conduct business” with an average of 4.20 out of 5. The third highest score was to the answer “A shared language is used as identifier” with an average of 3.97 out of 5. “Creates group-specific communication codes” scored 3.90, “Enables the combining of information” scored 3.74, “Enables the development of new concepts and creating new knowledge” scored 3.68, “Influences our perception” scored 3.66. The lowest average score was 3.62 for both “Defines the in-group and distinguishes from the out-group” and “In case people don’t speak the language, they are kept apart and have restricted or no access to information”. The median was 4 for all responses. Minimum was 1 and maximum was 5 for all responses.

The third question: **“Why do you think Storytelling helps organisational advantage?”** was answered as follows: The highest average score was for the answer “Show and transmit values, norms, and culture”, with an average of 4.07 out of 5. The second highest score went to the answer “Share knowledge and understanding” with an average of 3.99 out of 5. The third highest score was “Useful in education and training” with an average of 3.84 out of 5. “Communicate quickly, naturally, clearly” scored 3.72, “Focus on a vision” scored 3.59, “Solve problems and conflicts” scored 3.47, “Inspire continuous innovation” scored 3.45, “Manage change” scored 3.37, “Focus and plan the future” scored 3.31. The lowest score was for the answer “Make decisions” with an average of 3.17 out of 5. The median was 4 for most responses, with a 3 for “manage change”, “focus and plan the future” and “make decisions”. Minimum was 1 and maximum was 5 for all responses.

The two open questions produced many direct quotes from the respondents. Here is what respondents said: The question: **“Do you prefer Networks in person to Digital Networks like Facebook, LinkedIn, and Twitter?”** was answered as follows:

201 prefer networks in person, 57 respondents prefer digital networks, 12 say both are important. Respondents who say both networks are important, have no preference, as both have advantages and disadvantages. Here is what some of the respondents said:

“I use both – they both have their advantages and disadvantages, preferring the personal contact that allows me to use also “other channels” than the digital way.”

“I believe that it may be important to distinguish between a) being introduced to the network or creating a network and b) the consequent network contact. If a) then I would prefer networks in person since I get a better sense of other people by seeing them in person and talking to them face-to-face. But if it is an ongoing network with people who I already “know” then it really doesn’t matter”.

“I prefer to better know the people in my network – by meeting them I can assess their knowledge, motives, trustworthiness and the quality of the information we can exchange. Digital networks have the potential to be less trustworthy and potentially less useful. The best solution is combination of networks that provides opportunities for face-to-face contacts and digital network contacts.”

Respondents who prefer “networks in person” argue: Networks in person are based on a personal relationship, the relationship is real, not artificial, eye contact is important, high confidentiality, people contact, private contact, personal contact, I am close to the person, to the other people, there are confidentiality issues with digital networks, trustworthiness of the information, lower risk of distribution of negative rumours, security, trust, better communication, better understanding, better interaction, it is our habit, my expectations are met, confidential information is kept among few insiders, to talk is always better to avoid misunderstanding, face-to-face is better, because you can see the behaviour of the person, The body language is important. There is no body language in digital networks, Greater honesty and more substantial conversation than in digital networks, I can see the emotions of my contact. You cannot see emotions in digital networks, besides emoticons ☺ ☹ , exchange of emotions, of trust, spending time together, team building activities, reliability of the source of information. Here what some respondents say:

“The private, personal contact with people facilitates the building and the maintenance of

relationships.”

“Networks such as Facebook, LinkedIn and Twitter are extremely easy to join and therefore get logged up with people joining in on a whim or “just in case”. Personal networks require more personal investment and therefore are entered into more selectively and with more thought as to their relevance and benefits.”

“Digital networks cannot replace personal contact.”

Issues with networks in person are: there are obligations with networks, there are expectations in networks, and networks are time consuming.

Reasons why respondents would prefer “digital networks” are: Easy accessibility of information, low cost, diversity of information, speed of access and publication, flexibility, efficiency, and digital networks are an easy way to have access to private lives.

One respondent says:

“I do not network a lot but, I prefer digital networks if I need to find a piece of information since it provides the access. It is low cost, fast, and diverse and in most circumstances it does not hold any obligations.”

Issues with digital networks are: Confidentiality issues, misuse of trust, false expectations, digital networks are not my world, I am not member of Facebook, Twitter, etc., digital networks are lacking personal contact and therefore are less efficient, superficiality, there are pictures put on Facebook without the permission of the person in the picture, while digital networks are growing, personal contact is lost among people, digital networks are too time consuming, the quality of the information is not always given. Respondents say:

“Networking is convenient but sometimes causes troubles, especially when we connect with someone who we don’t know well.”

“I want nothing more than to be kept in peace. I keep contact with people with whom I want contact. That’s all.”

“Do you really know who you are networking with?”

“I am old! So, I am not used to digital networks, which also seem less rich in context.”

Is the preference for networks in person or digital networks a question of age? Will the younger generation be more reliant on digital networks? Or will the current trend of digitalisation be reversed due to abuse, espionage, and cyber-criminality? Will the future show us where the world will go? More and more digital contacts, faster, free of charge, always available, and everywhere accessible, is this the future? Or will we prefer deep private contacts without superficiality, but with trust, with honesty, with real friendships – far away from +500 Facebook friends – real experiences, events, parties, and relationships? Is the choice to be made between real life and digital life? Is it a matter of age or culture, or gender or education or job category, or nationality and languages spoken? Further research will be necessary to find an answer to these questions, as well as to the following questions: Have we reached the limitations of the digital world? Are we approaching the limits of the e-era, of e-recruiting, e-HRM, e-banking, and e-relationships?

## CONCLUSION AND DISCUSSION

The findings of this research are: networks, a shared language and storytelling help the organisational advantage in microfoundations in international environments. **Networks** are strong among HR managers, with a preference to networks in person compared to digital networks. Networks are a big help to the organisational advantage in microfoundations because, first, they provide access to information, second they provide this information easily, in a flexible manner, and efficiently, and third, they are fast. The cost for this information is low, because of the network. Advantages of networks in person are trustworthiness, confidentiality, reliability, security, good communication, personal contact, body language, eye contact, exchange of emotions, spending time together, building teams, and honesty. Issues with networks in person are that there are obligations, expectations, and it is time consuming.

Advantages of digital networks are the ease of access to information, low cost, speed of access, flexibility, efficiency, and diversity of information.

Issues with digital networks are confidentiality, trust, the lack of personal contact and the perceived lack of information quality, and increased time devoted to using them.

Globalisation, the internet, knowledge management help the organisational advantage in microfoundations in international environments.

A **shared language** is important in social relations. It enables people to discuss and exchange information, to ask questions and to conduct businesses. Language is used as an identifier. It also creates group-specific communication codes and influences our perception, enables us to combine information, to develop new concepts and create new knowledge. If you do not speak the language,

you are not the “in-group”, but the “out-group”, you are kept apart and have restricted access to information. This is how a shared language helps organisational advantage in microfoundations.

**Storytelling** is a powerful means of SHRM. Storytelling enables the distribution and transmission of values, norms and culture. It is used to share knowledge and understanding and is useful in education and training. Storytelling allows people to communicate, inspires innovation, helps to solve problems and conflicts, to focus and plan the future, to focus on a vision and to take decisions.

It is proposed that networking, in person and in digital form, a shared language as identifier and storytelling are capabilities for shaping the future and success of microfoundations in international environments.

## LIMITATIONS

The comparatively small sample size is a factor that threatens the generalisation of the findings, as well as the weak theoretical connection between SHRM, the use of networks, a shared language, and storytelling.

## FURTHER RESEARCH

The main objective of this research was to investigate why networks, language and storytelling help organisational advantage in microfoundations. Survey questionnaires were used to determine the extent to which networks, language, and storytelling influence the success of microfoundations. Further research could focus on qualitative research methods, using more interviews, as well as the influence of new media and age. Interviewing could be of advantage to this research. Indeed, one interview was conducted for the purpose of this research, which validated the findings from the questionnaires. But, it was not included into this paper.

Further research could be made in the domain of new media, comparing digital networks to networks in person, raising the question of the influence of the age of the person on this preference. Furthermore, the limitations of e-HRM, of e-recruiting, e-learning could be the centre of interest in future research.

Another path of further research could be the possible negative outcomes of storytelling.

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# THE ROLE OF NETWORKS IN INTERNATIONALIZATION OF BORN GLOBAL INFORMATION TECHNOLOGY FIRMS: THE CASE OF SMES IN LITHUANIA

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## ABSTRACT

This study explores the phenomenon of the born global firms and network as a core activity in internationalization process, especially for entrepreneurial SMEs from small countries. Study aims at filling the gap by providing a comprehensive empirical analysis on this issue in small Central and Eastern European country Lithuania. Despite limited resources that usually characterize new entrepreneurial developments, born global companies achieve substantial international sales in early stage and rapid internationalization, they are niche oriented and usually create innovations. Understanding the internal and external reasons which stimulate born global companies to be involved in international market and network role in the internationalization process were main research questions. Lithuanian SMEs information technology companies were investigated. In the article the internationalization motives are provided which influence the growth of Lithuanian born global information technology firms in terms of network and entrepreneurial quality. Finally, the research contributes to the phenomenon of born global firms and may be useful to SMEs reaching for a more successful penetration to foreign markets.

**Keywords:** *born global, networks, international entrepreneurship, information technology industry, Lithuania.*

## INTRODUCTION

Because of the growth of international business integration and globalization, internationalization of services companies became as a necessity trying to remain and develop their business despite the size of firm, managed resources, and type of the activity. Also, internationalization process is becoming an important strategic element in reaching for sustainable growth of the firm. Relevancy of theory and practice are grounded on the possibility to explore preconditions of internationalization that enables susceptible to knowledge information technology firms. Those born global firms usually distinguish for entrepreneurial performance, ability to act internationally, and the influence of networks to them. In

addition, born global firms achieve good results by acting in networks. The research problem was analyzed by such scholars as Onkelinx and Sleuwaegen (2010), Johanson and Vahlne (2003) and others, who were exploring internationalization of MNEs. Internationalization stages were investigated by such scholars as Vasilchenko and Morrish (2011), Gonzalez and Sieglind (2012). Sheppard and McNaughton (2011) as well as Kontinen and Ojala (2012) are the researchers who were exploring factors that determine a rapid internationalization process of born global firms, models, and barriers. The biggest number of researches was done in the concept formation of born global firms; however, the information of the activity of this phenomenon, particularly the network among born global firms is missing. Over the last few years an increase of researchers and practitioners' interest in network influence to the internationalization of born global companies is noticed. The researches were done by Andersson and Wictor (2003), Autio *et al.* (2000), and Zhou *et al.* (2007). The researches are focused on entrepreneurial characteristics of born global firms from Scandinavian countries, Ireland, Israel, and USA. The research based on entrepreneurship on network processes was analyzed by Slotte-Kock and Coviello (2010). However the internationalization of born global Lithuanian firms and the role of network is quite a new subject requiring deeper analyses.

The research problem is supposed by fast changes, which determine that internationalization strategies of born global firms from emerging markets, as Lithuania is one of the emerging countries in Central and Eastern Europe. Therefore, network among born global firms, motives and barriers that condition decision making, and a search for new successful internationalization path are one of the most relevant scientific fields.

The research problem may be revealed by following questions: what are internal and external factors that stimulate the penetration of Lithuanian information technology firms to international markets? what are the external linkages of born global companies acting in networks? Aim of the article - to explore involvement of Lithuanian born global information technology firm in networks and what the role of networks is.

Due to the limited research in Lithuania on the topic, the systematic and comparative literature analysis and empirical approach to tackling this issue by applying a qualitative research of information technology companies were employed.

## LITERATURE REVIEW

Although internationalization is an essential factor for the growth potential of born global companies, it is quite difficult process and requires a lot of companies' resources. Limitation of resources and experience as well as the possible risk to organization are the key factors disturbing the internationalization of SMEs. In spite of this, the number of born global within SMEs is constantly

increasing, these firms are successful in penetration to international markets, and their main characteristic is a rapid internationalization to foreign markets. Scientific literature provides a variety of firms which started their activities in international markets from the very beginning after the establishment, and these were called High Technology Start-Ups, International New Ventures, International Entrepreneurs. However, it is noticed that most of the scholars analyzing the performance of these companies describes them as Born Global firms (Knight and Cavusgil, 2004; Rialp *et al.*, 2005; Gabrielsson *et al.*, 2008; and others). According to Hagen *et al.* (2012), the increasing number of dynamic firms is noticed, which penetrate to international markets after a short period of their establishment, entering many foreign countries and lay under obligation to those countries. Such firms export their production up to 25% to the foreign markets (Andersson and Wictor, 2004). As Luostarinen and Gabrielsson (2006) state, at the beginning of their activities, born global firms sell up to 50% of their production outside their countries. In comparison with traditional firms, born global companies are more specialised and niche oriented with unique, innovative products that are either more custom made or more standardised (Dib *et al.*, 2010; Freeman *et al.*, 2012). They target a narrow customer segment, which might be geographically distributed (Aspelund and Moen, 2010). Born global firms see themselves as owning or possessing a source of competitive advantage in foreign markets by way of their expertise, unique product features, better technical service, knowledge competences or a combination thereof (Evangelista, 2005; Kudima *et al.* 2008). Born global companies usually work very entrepreneurial. International entrepreneurship of these companies associated with international oriented and experience, proactive, risk – taking behavior that crosses national border, level of technical and know-how knowledge (Dib *et al.*, 2010; Hartsfield *et al.*, 2008). The firm's entrepreneurial orientation contributes to its ability to create processes, practices, and decision making activities that are linked with successful entrance to foreign markets (Knight and Cavusgil, 2004; Roudini and Osman, 2012). The managers of firms that follow an international entrepreneurial orientation stress the importance of having a proactive and innovative approach to operating in international markets. This orientation in foreign environments supports a firm's awareness of key strategic initiatives that enable international success (Knight and Cavusgil, 2004).

According to Knight, Cavusgil (2009), and Halldin (2012), the origination of born global enterprises was stimulated by following aspects: 1) Advancement of technologies in production and transportation systems. 2) The enforcement to specialise in order to sustain competitiveness of the firm; it determined the emergence of many niche oriented markets. In order to function in niche oriented markets, firms had to increase the number of their customers by moving to global markets. 3) Advancement of information technology. 4) The advantages of small firms: better reaction, flexibility, adaptability. 5) Globalization based on knowledge, which eliminated many international trade barriers. 6) Trends in

the world networks, which formed because of advancement of information technology. In addition, for the use of social networks, born global firms are able to master global market information and effectively apply it to the business expansion. (Oviatt and McDougall, 1995; Freeman and Cavusgil, 2007; Hartsfiel *et al.*, 2008; Schulz *et al.*, 2009).

In the perspective of network theories, internationalization is associated with a creation of new networks and grounded on theories of dependency of social exchanges and resources based view (Johanson and Vahlne, 2003). Relationships among participants in network appear because of the aim to exchange valuable resources, and this interface continues until it is beneficial for both of the parties. When the network is already established, enterprises share among them all the works what means a dependency on each other (Sasi and Arenius, 2008). Gilchrist (2009) states that network is a movement and share of ideas, information, knowledge, practise and experience, and exchanges among members aiming at common interest of creating added value in a particular field. According to a provided definition, three key network elements may be exhibited: a common aim of the participants, collective relations, and operations in the network. The network of born global companies comprises of collective relations among firms and external members (clients, suppliers, business agents, competitors, universities, and other players), who could have an ability to propose something in exchange of something to other members of the network (Hite and Hesterly, 2001; Zhou *et al.*, 2007). Born global company may mobilize resources through external relationships to pursue its goals (Johansson, 2005). Entrepreneurial enterprises situated in a network of existing and to be formed relations with important upstream (e.g. suppliers, parent company), downstream (e.g. distributors, customers) and horizontal actors (e.g. competitors, alliances, universities, ). These relations derive characteristics from the resource requirements of the company and as such also influence the growth of the firm in two important respects. Firstly by way of influencing the identification of opportunities, and secondly by influencing how the opportunities are acted upon and realized (Johansson, 2005).

Network theory stresses that networks help the firm overcome any resource constraints that they encounter; also provides better access to resources and international opportunities, and international network relationships reduce risk while entering foreign markets. Network is essential for a born global firm in overcoming any resource constraints that it encounters (Kocak and Abimbola, 2009). In the initial stages, born global firms leverage their networks to generate organizational skills and competencies, including technological capabilities (Cavusgil and Knight, 2009). Network relationships also generate the social capital that provides a better access to resources and international opportunities and the means by which to overcome the liabilities of newness and foreignness (Kocak and Abimbola, 2009). Therefore, after internationalization is well underway, managerial focus shifts to developing human resources to support further growth. Subsequently, the firm turns its emphasis to building its

client and distribution base. For born global firms networks are critical for generating social capital and provide for the acquisition, mobilization, and development of the needed resources (Cavusgil and Knight, 2009).

## **BRIEF OVERVIEW OF LITHUANIAN INFORMATION TECHNOLOGY INDUSTRY**

Lithuanian IT services firms distinguish for their orientation to export markets. Several years ago Lithuanian firms were competing in foreign markets mainly for low labor costs. In the last years Lithuanian IT companies have been participating in the international exhibitions, have been creating clusters and high added valued products that are successful over the world. The results were increase of export volumes, emergence of new clients and increase of foreign investments to Lithuanian IT sector (Ivanovas, 2013). In 2012 the main export markets of Lithuanian companies provided IT services were Denmark (23,7 % of the total sector export; the value was 15 million Litass, 1 EUR=3.456 Litass), Singapore (respectively 16,6 % and 10 million Litass), USA (respectively 11,8 % and 7 million Litass), Finland (respectively 8,3% and 5 million Litass), and Germany (respectively 8,1 % and 5 million Litass) (Dovydenas *et al.*, 2012). Moreover, exports of computer and information services continued their steady growth in Lithuania. The export of IT services reached 114,2 percent in the period of 2010-2012, and exports took about 2.5% of overall country's exports in 2011 (Enterprise Lithuania, 2011). In addition, there is forecasted a fast export growth of IT services. Such a rapid growth of IT services export was mostly influenced by direct foreign investments to IT services sector. Finally, qualification of Lithuanian IT firms meets all the set requirements. That is shown by such companies as DeutchBank, which was provided of software by Alna Software, Nokia, which became a partner with a creator and producer of telecommunication products Teltonika, and Bentley Sytems, which works with Lithuanian programmers for twelve years (Penkios svarbiausios Lietuvos IT sektoriaus raidos tendencijos, 2013).

## **METHODOLOGY**

The empirical research aim was to explore factors affecting companies' internationalization and companies international entrepreneurship; the importance of partnership and network in born global companies activities. Based on relevant management literature described earlier, the investigation dimensions were identified: stimulation of the origination of born global enterprises and internationalization motives and assesment of the the role of network as the core activity in value creation. The following specific objectives (SO) have been formed:

SO1: to identify the motives that have impact on involvement of the born global firms in international activities and international entrepreneurship. Such exploratory variables were explored: external and internal factors, affecting the beginning of international activities.

SO2: to assess the external relations and the role of network in born global companies activities. The research criteria were investigated: profile of main partners and the external linkages between horizontal, upstream and downstream actors, sustainability of collaborations, partner finding methods, scale and scope of the networks, benefits of being involved in networks and barriers to networking.

On the ground of Lithuanian Statistics Department (2013) 2185 firms belonged to Lithuanian IT sector in 2012. Small and medium sized enterprises were the predominant ones in IT sector and comprise around 84% of all IT firms. IT enterprises are united by Infobalt Lithuania association, which is a locally and internationally recognized representative of Lithuanian ICT industry. Infobalt Lithuania cooperates with the state institutions of Lithuania and other partners. Association is a member of Digital Europe and World Information Technology and Services Alliance (WITSA), international ICT industry organizations. Based on the data of the association, around 150 Lithuanian IT enterprises are exporting on a regular basis. Other firms are limited to the local market or export their production to foreign markets occasionally.

The research sample was 28 companies (E1, E2, E3, ..., E28) that were selected from Infobalt Lithuania database, accepted to be surveyed by using an interview. Such criteria for choosing the respondents for qualitative research have been selected: 1) the company should be involved in international activities; 2) income derived from foreign markets includes more than 25 % . The semi – structured questionnaire has been developed and content analysis has been made. Selected companies agreed to participate in an hour-long semi-structured interview. The approach allowed the researcher to ask supplementary questions. The organisations chosen for the collection of qualitative information through semi - structured interviews are listed in Table 1.

The sample is not representative for the population, but it is significant if compared to IT companies that started their international activities in the first three years from their establishment. Some of interviewed companies were not actively involved in other international networks and it is another limitation to research.



Enterprise	Number of employees in Lithuanian SMEs company / number of employees in foreign subsidiaries*	Year of establishment	The beginning of international activities	Sales in foreign markets, approx. (%)
E 1	10/0	2009	2009	70 %
E 2	80/30	2005	2005	90 %
E 3	5/7	2008	2008	50 %
E 4	41/22	2008	2009	60 %
E 5	25/15	2003	2003	75 %
E 6	25/0	2009	2010	70 %
E 7	50/0	2000	2002	65 %
E 8	56/20	2002	2003	90 %
E 9	30/2	2005	2007	100 %
E 10	8/0	1991	1995	70 %
E 11	30/8	2007	2009	80 %
E 12	29/0	1997	2000	65 %
E 13	23/0	2003	2005	50 %
E 14	55/50	1996	1996	70 %
E 15	3/4	2011	2011	70 %
E 16	4/0	2012	2012	30 %
E 17	3/0	2008	2011	55 %
E 18	6/1	2004	2005	65 %
E 19	4/0	2003	2004	70 %
E 20	14/0	2001	2001	70%
E 21	30/0	2004	2007	80 %
E 22	7/1	2002	2008	25 %
E 23	80/2	2005	2006	30 %
E 24	4/4	2007	2008	90%
E 25	10/0	2012	2012	100 %
E 26	210/0	2002	2002	60 %
E 27	78/32	1998	2001	50 %
E 28	65/0	1995	1995	95 %

\*Size of the company estimated by number of employees, when micro sized enterprise has 1- 9 employees, small sized has 10 – 49 employees, medium sized has 50 – 249 employees, large sized more than 250 employees (Law on Small and Medium Business Development, 2010).

Table 1. *Sample characteristics: Lithuanian information technology born globals*

Characteristic data of the surveyed companies revealed that the majority of the companies are micro sized: 11 companies involved in the research have up to 10 employees, 8 companies small sized, and have from 14 to 50 employees, other surveyed medium sized companies have up to 80 employees, and only one company has 210 workers. The survey was carried out in April – May 2013.

## RESULTS

SO1: to identify the motives and factors, that have impact on involvement of the born global firms in international activities. Managers of the SMEs companies that took part in the research have pointed

out that they work in the markets of European countries, USA, Asia, and Africa. Information technology services are mainly exported to USA, Latvian, and German markets. These markets are attractive for Lithuanian IT companies due to diversification of the business risk, protection from national currency depreciation, opportunities of involvement in international networks by offering an innovative product which is being created by the cluster of Lithuanian IT firms.

Main motives which push born global companies to act quickly in international markets are risk distribution and small Lithuanian market, in which companies do not have a possibility to expand their business and to find a segment of the market for provided services: *"In Lithuania there was no market which can be oriented for service", "<...> the Lithuanian market is too small for us", "<...> in Lithuania we did not find our market segment"*. The aim to foothold in foreign markets for Lithuanian IT sector companies is not so important, and the least important thing – competitors operating in the local market.

The external factors compared with internal ones do not have a significant impact on the international start-up activity and entrepreneurship of Lithuanian born global IT companies. The worst impact on firms has information technology spread, which may be considered to contribute to accelerating firm's presence in the foreign markets, their ability to compete with much larger companies. Partnership also affects company's internationalization. It can be seen that networking and cooperation with partners for Lithuanian born global IT sector companies provides valuable knowledge and makes it easy to start-up internationally, predisposes joint-ventures start-up. Partially, the beginning of the international activities of the enterprise is driven by increasing competition in the international market. The managers of companies mentioned that accelerating development of information technologies leads to greater support of non-financial public institutions, and as a result companies are learning on their own more often. An accelerating pace of information technologies predisposes born global IT sector companies to connect to networks.

Lithuanian IT sector companies collect information about the customers, competitors and service sales systematically. Only few companies in foreign markets perform market research in foreign countries due to the high costs. Company's decision making are mostly influenced by the international environment. Cooperation with partners and network as well as local market influence strategic decisions only partially. The biggest part of Lithuanian IT sector companies entered international market rapidly and immediately. These companies have entrepreneurial characteristics: the ability to respond rapidly to changing customer needs and environmental factors, ability to take risky decisions, interest in future forecasts. Results of the study shows that in several companies the income from international markets is almost 100%, and these companies are solely oriented to foreign markets.

SO2: to assess the external relations and the role of network in born global companies activities. Research results revealed that born global IT companies collaborate with various national and

international organizations. Most of the companies (25 out of 28) stated that they collaborate with foreign market (where their firms operate) companies: *"Our main partners are foreign companies. And we have lots of benefits from the cooperation with them"*. However many Lithuanian born global companies cooperate with Lithuanian firms (17 out of 28) operating in Lithuania. Managers of surveyed company noted that *"cooperation with Lithuanian organizations helps to compete abroad and we are cooperating with Lithuanian Business Support Agency, Enterprise Lithuania"*, *"<...>when a task-specific knowledge is needed, then we appeal to Lithuanian companies with necessary expertise for that"*.

Representatives of IT companies have stated that companies are cooperating with customers (13 out of 28) when providing service (*"Our customers are our partners, since cooperation with them improves our quality of services provided"*, *"<...> clients help us to figure out pros and cons of the services provided in the most efficient way"*, *"<...> in collaboration with clients we create new products"*). Horizontal cooperation with educational institutions and universities (12 out of 28) is useful, because *"collaboration with universities brings us considerable benefit. Cooperating with educational institutions we organize surveys, idea development workshops"*, *"<...> we are taking various projects in collaboration with universities, and it brings benefits to both the company, students and university. One of our main partners is Kaunas University of Technology with an innovative platform, start-up space and variety of technological solutions and services"*.

The most popular partner finding method of SMEs companies is Internet (16 out of 28) and the recommendations of friends and acquaintances (16 out of 28). The surveyed managers of IT companies noted, that *"first of all, we are looking for partners we could collaborate with; then, we are searching for contacts of those firms on Internet, and finally, we are trying to make acquaintance of them"*, *"<...> when I want to collaborate with someone, I ask my colleagues and friends for recommendations or necessary contacts, and only then I begin to search for it through other channels"*.

The active search is performed in Lithuanian institutions, which provide business support and affiliate search engines. Enterprise Lithuania is one of the main founding partners of Startup Lithuania movement which promotes the development of new entrepreneurial companies and their business acceleration ([www.startuplithuania.lt/](http://www.startuplithuania.lt/)) by involving them in specialized events, supporting in finding investors, providing trainings and consultations. For the SMEs companies investment may be the gate opener to the international markets because trade channels can be formed through the new partner network and using their experience, specific knowledge of the market. The managers mentioned that *"in the partner search database the provided information allows to select the firms easier and faster to whom might be able to cooperate"*, *"<...>the best way for us to find foreign partners we might collaborate with is through the partner search database provided by Association of Lithuanian Chambers of Commerce, Enterprise Lithuania, Startup Lithuania"*.

A part of Lithuanian born global IT sector companies is looking for partners in international exhibitions, fairs and conferences. The analysis of the study showed that majority of the surveyed companies participate in the association Infobalt Lithuania activities, however in other international networks participate only 15 out of 28 surveyed subjects. 3-7 companies are usually running in the network. The few companies are involved in network with 14-15 firms: upstream actors (suppliers), downstream actors (distributors, customers) and horizontal actors (competitors). Companies adapt and align their networks to gain the resources they need to ensure successful emergence and growth. Partnership with strong foreign companies is substantial. Strong partner which actively participate in an international network provides the access to necessary resources, skills and competencies. Such activities which are being developed between network partners were identified: knowledge sharing (26 out of 28), experience (21 out of 28), creation and production of innovative products (14 out of 28), consolidation in the foreign markets (13 out of 28), research and development activities (7 out of 28), costs sharing (2 out of 28). The managers mentioned: *„While collaborating, not only we transfer our knowledge to partners, but also we get a lot of information from them which is useful for our activity”, „We often arrange meetings where we are able to share our knowledge with partners because that is a way to improve firm performance”, „In order to avoid mistakes that were done by us or by our partners, it is important to share the experience”.*

Acting in the network with other companies, Lithuanian IT sector companies gain a competitive advantage on the local and foreign markets. The effect of network promotes and stimulates innovation, which is very important in order to maintain a competitive advantage in the local and foreign markets: *“In cooperation with business firms we gain experience which is applied in reality. Our position in the foreign markets is consolidated by the network”, „<...> acting in networks let us to get useful information from professionals of different fields as well as to share our ideas with them”.*

The interviewed managers have agreed that cultural attitudes are main barriers that influence the development of international networks and social capital. Communication disturbance because of unclear information or information abundance have been named as main barriers by most respondents (*„<...> information abundance may result in reduction of relationships with partners; although the information may be of a high importance, because of the large amount of information it is not always read on time”, „<...> at the early stage of cooperation it is usually difficult to understand partners as the manner of communication is different as well as the ways of exchanging information”). At the beginning of international business activities many firms confront with language barrier described as follows: „As soon as we began to collaborate with foreign partners, we faced a language barrier as it was quite difficult to understand the accent of employees”, „<...> at the early beginning, employees were not good at spoken English and it was not*

*so easy to communicate with partners face to face*". Finally, the collaboration is not enhanced because of unobtainable tasks and results that are planned with partners, and steady adjustments to the partners.

## CONCLUSION

The data of the empirical research revealed, that internationalization of Lithuanian born global information technology firms is determined by external (IT development, partnership, and network) and internal factors (manager's knowledge and skills, firm's innovation, unique services) which become catalyst for motives to emerge. The accelerator of internationalization becomes the effect of network and partnership support between born global companies and their partners. In some cases the partner is university. University's innovation centres or start – up spaces works like platforms for new entrepreneurial firms, providing them with support, knowledge and infrastructure. The part of the surveyed companies usually has the network of 14-15 national and international business firms, upstream, downstream and horizontal actors. It is important to have a strong partner which could access to new partners in networks and provided necessary resources for the development of new products seeking the growth and the development of Lithuanian born global company. The company's position in international markets is strengthened by network with different institutions, international associations. It also enhances cooperation between enterprises, development and implementation of new projects, customer search; provides an opportunity to share knowledge and experiences, and to learn from the partners. However, the part of the surveyed Lithuanian information technology firms is not involved in the international networks. There are several possible explanations for that. Firstly, Lithuanian government and universities started to actively promote entrepreneurial star-up activities only few years ago. During the last two years there were lots of start-up events, conferences, workshops, IT business missions which were very successful. These events encourage young entrepreneurs quickly start international activities. The multinational players entering the market like Barclays, Western Union, and IBM impacted on the costs of human resources, and competitiveness of Lithuanian SMEs. Nevertheless, this reason might be as an accelerator in the nearest future. Highly qualified employees with work and network experience in multinationals might start to run their own SMEs business. This finding suggests a necessity of further research on international entrepreneurial orientation in information technology industry and network development of Lithuanian born global issues. The further research could be enriched with comparison between different types of businesses: micro, small and medium sized enterprises.

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## ECONOMIC EVALUATION OF SHORT-TERM DECISIONS IN WINEGROWING FARMS

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### ABSTRACT

The majority of small sized Sicilian winegrowing farms are placed in the first part of the supply chain. In this way they are subjected to the grapes prices fixed by the wineries, becoming price takers. This situation determines marginal revenues lower than average costs and in short-term a reduction of farmer income that it can allow to farm bankruptcy. In this context farmer should adopt economic strategies in order to obtain higher profit in a more and more competitive market. The aim of this paper is to understand whether, decreasing labor cost in short-term by means of process innovation, average costs of small sized Sicilian winegrowing farm do not exceed marginal revenues.

**Keywords:** *Average cost, competitive advantage, marginal revenue, profit.*

### INTRODUCTION

The choices that an entrepreneur can make to achieve a competitive advantage may be short and long-term. This distinction is crucial as in the short term the entrepreneur can act only on variable production factors (Begg et al., 2011). In the short term, it is difficult to radically change the production process or the production orientation of an enterprise. These choices are indeed strategies better implemented over the long term. Therefore, given a combination of production factors, the entrepreneur can only modify the input affecting business productivity (e.g. by increasing the amount of fertilizer), or decide to act on any input allowing to lower production costs such as those relative to labor (by mechanizing a given agricultural operation thereby increasing the productivity of the labor factor). These choices become fundamental for an entrepreneur who operates in a market where average cost is higher than marginal revenue (Messori and Ferretti, 2010; Schotter, 1995). In fact, in this situation the enterprise produces a loss for each unit of product. To offset this situation, without altering the whole productive structure of the company, the entrepreneur may introduce process innovations that enable him/her to drive down the average cost below the marginal revenue, thus producing a profit (Tudisca et al., 2013a). This situation can be maintained as long as competitors do not imitate this strategy (Tudisca et al., 2013b). The imitation of the strategy on the part of competitors



will lead to a decreasing marginal revenue until it equals the average cost of production or even drops lower than it, thus restoring the previous situation. The successful business formula, for an entrepreneur operating in highly competitive environments, consists in emerging strategies that enable the company to create and maintain its competitive edge (Tudisca et al., 2014a; Crescimanno et al., 2013; Szabó and Popovics, 2009; Invernizzi, 2004; Coda, 1988). In this work, we have analyzed how a wine-growing farm which operates in conditions of average costs greater than marginal revenues can gain a competitive advantage in the short term.

## COMPETITIVE ADVANTAGE

A competitive advantage is the result of a strategy that leads the enterprise to occupy and maintain a favourable position in the market in which it operates, with the effect of keeping its profitability higher than its competitors. It manifests itself in the ability of the enterprise to create value for the market that is greater than the one developed by the competition and that is also lower than the costs incurred to create it. A competitive advantage is therefore the expression of a position that is superior to that of competitors in the same strategic grouping (Fontana and Caroli, 2006; Parnell, 2002).

Such a situation proves highly convenient in the marketplace of undifferentiated goods and services, as exemplified by the case of commodities, where the entrepreneur often works in conditions of average cost (AC) higher than marginal revenue (MR) (Figure 1).

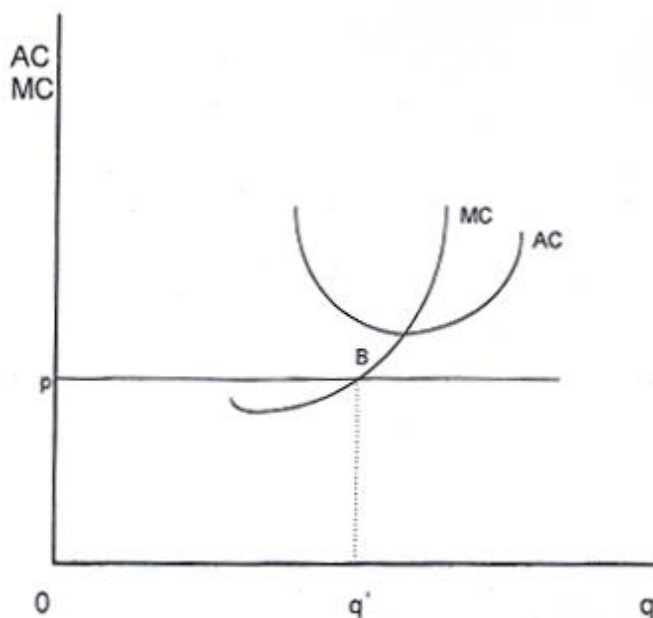


Figure 1 – Enterprise operating with average costs higher than marginal revenues

In B point, where marginal cost (MC) is equal to price (p) and to MR, enterprise has a loss for each unit of output produced.

In this situation, achieving a level of total unit costs lower than that of competitors, is the only way to achieve a position of competitive advantage (Favotto, 2007). In this case, the enterprise can operate with a level of average costs lower than the marginal revenue and thus determine a profit for the business (Figure 2).

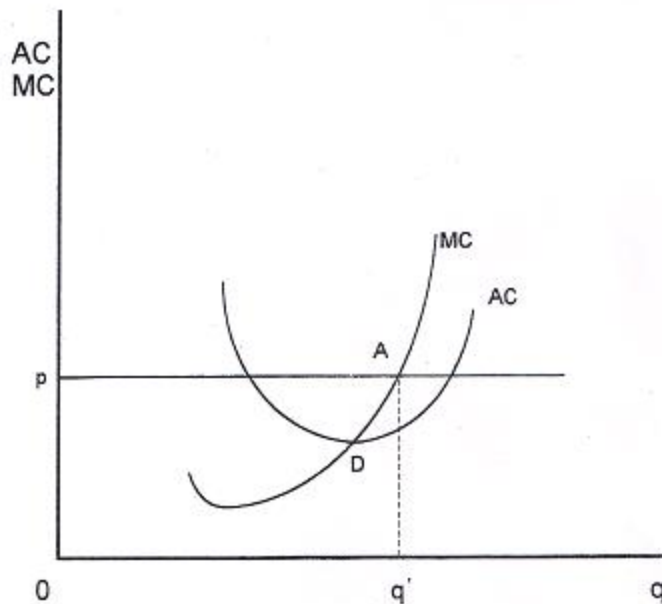


Figure 2 – Enterprise operating with average costs lower than marginal revenues

So, in point A the AC is lower than price and thus enterprise realizes a profit.

At the present time, the ability to contain costs to the greatest possible extent represents an indispensable competitive condition for many agricultural businesses that go no further than the first stage of the production chain.

The ability of a farm to operate at a level of unit costs lower than competitors allows it to control the competitive level of prices. The company can lower the sales price of its offer to a level which, whilst remaining above its own average cost, is lower than that of its competitors (Pellicelli, 2005; Peteraf, 1993). The latter are bound to lose market shares in favour of the cost-leading company, unless competitors quickly lower their average costs and follow the lowering of prices, or increase the value of their supply (Besanko et al., 2001).

This situation determines an increase in demand, which elicits an increase in production of the enterprise; this growth increases the exploitation of economies of scale and the accumulation of experience. Furthermore, it can also favour a greater control of the supply chain. The increase in demand allows the enterprise to strengthen its cost advantage, putting it into a position to reduce the sales price again and foster more demand. However, even if this situation is applicable to the industrial sector, it is not particularly suitable for the agricultural sector where supply is rigid in the short term, depending on the characteristics of the activity carried out (Guerrieri et al., 1995;

Prestamburgo and Saccomandi, 1995). However, the entrepreneur may still reach the market with a lower average cost for the produced units that depend on the production structure assumed as a long-term choice (Rispoli, 2002; Volpato, 2000).

It is necessary to highlight that the advantage resulting from cost leadership does not necessarily translate into a decrease in price. It is in fact clear that if the cost-leading enterprise keeps the price of its supply at the levels of the average costs of the competitors, this has an important effect on the financial structure of the company and on its investment capacity. All other conditions remaining equal, the greater margin allows, on the one hand, a higher level of self-financing and, on the other hand, higher returns on risk capital (Santeramo et al., 2012; Coeurderoy and Durand, 2004). In the first case, the enterprise increases its net assets, and hence at the same financial leverage, the stock of debt that it is able to run up. In the second case, it creates more favourable conditions for the possible acquisition of new risk capital. In both situations, the greater margins of income generated by cost leadership are reflected in the increase of available financial sources. The increased sources of funding, in fact, foster investments (in fixed and working capital) and the expansion of the enterprise's turnover. In a situation of market stability, the higher levels of available sources allow the company to make investments that improve efficiency or that allow it to develop differentiating features in its offer, compared to its competitors. Cost leadership leads to a greater capacity for company growth and/or it strengthens its competitive position in terms of increasing cost advantage or even differentiation (Kaniovski, 2005; Ferrucci, 2000).

Cost advantage is primarily pursued through actions aimed at the most important cost determinants in the activities of the value chain where most of the costs lie. This position is obtained from the exploitation of production economies (scale and experience), which is a typical strategy of enterprises that aim at cost-based leadership. In relatively stable markets with a ratio between optimal minimum dimension and total demand that is not exceedingly low, the capacity of the company to take on a dimension with a more efficient production level (being able to defend its corresponding market share) represents a strategy that competitors find difficult to imitate and which thus leads to a sustainable competitive advantage.

The innovation of process or of product is a second path to reach a sustainable cost advantage, at least in the medium term. Thanks to innovation, the company can rely on better technologies than its rivals, allowing it to produce under conditions of greater efficiency or to create a product that, at the same value to the client, has lower production costs (Desai et al., 2001).

## MATERIALS AND METHODS

In this study, an analysis aimed at determining cost leadership of a small sized enterprise was conducted within a winegrowing farm producing grapes of Merlot cultivars in Sicily, the largest island in the Mediterranean sea with a typical climate with hot and dry summers and mild winters (Grillone et al., 2014; 2012; D'Asaro et al., 2012). The grapes produced are not transformed into wine inside of the farm but are sold to processing firms. These types of firm are widespread in Sicily (Tudisca et al., 2014b). The research was geared to answer one question: starting from a situation where average cost is greater than marginal revenue how can the farm gain a competitive advantage. The data were collected through a direct interview (Tudisca et al., 2014c).

The strategy aimed at acquiring a condition of cost advantage results from a process that can be described according to a rational procedure using the value chain (Porter, 1980).

The analysis should start by analyzing the various steps that lead to obtaining the output. In this phase, we analyzed operating costs incurred by the farm in relation to the single activities of the value chain (Collins and Montgomery, 1997; Airoidi, 1980). For each activity, the proportion of operating costs that it entails is estimated. This phase leads to highlighting the activities which are crucial, from a costs point of view, and that consequently have more weight in the strategy here examined. Cost advantage is a condition that must be assessed in relative terms: that is, it depends on the level of the farm's costs compared to its competitors, rather to the average cost of the strategic rival grouping. The second phase consists in comparing the costs incurred by the farm for the implementation of the various activities to those that competitors face in the corresponding activities of the value chain (Pontiggia, 2001; Perrone, 1990). This phase depends on the actual availability of data that the entrepreneur has regarding the cost structure of the firm being compared. In most cases, considering the level of technology, this information is easily obtainable also thanks to the experience that the entrepreneur has of the sector; where experience is lacking, average data of the sector could be used for reference. The comparison with competitors is an essential stage of the procedure, as it highlights two basic conditions for the subsequent devising of the strategy for cost leadership. First of all, sustainability; it is clear that the company may seek to implement this strategy only if it has a cost structure at least potentially better than that of competitors. Second of all, it focuses on the activities that are critical for the determination of cost advantage, highlighting those where there are major differences with respect to competitors.

The third phase can be defined as "operational". In this phase, we have the logical passage between the process phase that outlines the general situation that is "critical" in terms of cost, and the phase relevant to the devising of the strategy. In this third phase, the determinants of level of costs are studied. These determinants are evaluated with reference once again to the individual activities of the

value chain, with attention mainly to those activities that the previous two stages have identified to be the most critical from the point of view of the overall cost trend.

The determinants of the level of costs also concern the interdependencies between the activities of the same value chain and those between the activities of different value chains. Even the study of factors from which the cost trend depend must be carried out within the limits of available information, in a comparative way with respect to competitors .

On the basis of observations of the various determinants of costs, we proceed to define the strategy to achieve the position of advantage over competitors. This strategy can go in two different directions: on the one hand, it can be oriented to detect interventions on cost determinants aimed at achieving the best result in the various activities of the value. Alternatively, it can innovate the organization of these activities in relation to the constraints and opportunities inherent in the features of the various cost determinants (Roy and Vézina, 2001; Sharp and Dawes, 2001).

The last phase identifies the actions to be taken in order to implement the strategy defined in the previous phase and the new procedures that can be used for that purpose.

## **RESULTS AND DISCUSSION**

The results obtained show that the total cost of production amounted to 40.37 Euro/q, of which 27.43 Euro/q are represented by costs for cultivation operations whereas 12.95 Euro are the calculated costs (Table 1).

Costs	Ex ante situation case study			Competitor			Ex post situation case study		
	€/ha	€/q	%	€/ha	€/q	%	€/ha	€/q	%
Soil working	6.17	1.49	3.7	164.50	1.65	4.0	148.80	1.49	4.5
Soil cleaning	8.38	2.02	5.0	195.60	1.96	4.8	201.60	2.02	6.1
Fertilization	10.97	2.63	6.5	186.32	1.86	4.6	263.16	2.63	8.0
Winter pruning and tying	22.13	5.31	13.2	586.00	5.86	14.3	215.00	2.15	6.5
Treatments	299.68	3.00	7.4	245.00	2.45	6.0	299.68	3.00	9.1
Green Pruning	425.00	4.25	10.5	485.00	4.85	11.9	425.00	4.25	12.9
Irrigation	150.00	1.50	3.7	150.00	1.50	3.7	150.00	1.50	4.6
Harvesting	723.16	7.23	17.9	810.00	8.10	19.8	300.00	3.00	9.1
A) Total costs of cultivation operations	2,742.70	27.43	67.9	2,822.42	28.22	69.1	2,003.24	20.03	61.0
Management and general expenses	140.00	1.40	3.5	140.00	1.40	3.4	140.00	1.40	4.3
Taxes	156.60	1.57	3.9	134.00	1.34	3.3	156.60	1.57	4.8
Interests	48.32	0.48	1.2	49.27	0.49	1.2	36.00	0.36	1.1
System reinstatement	634.59	6.35	15.7	623.54	6.24	15.3	634.59	6.35	19.3
Interests on land capital	315.00	3.15	7.8	315.00	3.15	7.7	315.00	3.15	9.6
B) Total of calculated costs	1,294.51	12.95	32.1	1,261.81	12.62	30.9	1,282.19	12.82	39.0
C) Total Cost (A+B)	4,037.21	40.37	100.0	4,084.23	40.84	100.0	3,285.43	32.85	100.0
D) Value of Production	3,500.00	35.00		3,500.00	35.00		3,500.00	35.00	
E) Profit (D-C)	-537.21	-5.37		-584.23	-5.84		214.57	2.15	

*Table 1 - Economic results**Source: our processing of directly collected data*

In the first group, as well as in other studies (Tudisca et al., 2011), the greatest value is represented by costs associated with winter pruning and tying (5.31 Euro/q) and those relative to harvesting (7.23 Euro/q). These costs together account for 31.3% of the total cost of production. Within the same field of costs of cultivation operations, green pruning entails 10.5% of the total cost of production followed by treatments (7.4%), fertilization (6.5%), the tilling of soil and irrigation, that represent 3.7% each. Within the frame of calculated costs, significant importance is represented by the cost of reinstatement of the plantation (15.7% of the total), followed by the interest on the land capital (7.8%), taxes (3.9%), general expenses (3.5%) and interest (1.2%). Even the competitors have a cost structure very similar to that of the enterprise examined. The minor differences that exist are due to the construction of the average data which reflects the various business situations of the area under investigation.

At this point, as mentioned in the methodology, within the scope of the production process, the entrepreneur can act on some costs that determine the lowering of the total cost of production. Compared to the situation of the competitors, our entrepreneur may act on the costs of winter pruning and harvesting (Kunihiro, 2013; Sarig, 2012). In particular, other studies carried out (Tudisca et al., 2013c) show that process innovations may be introduced in the company regarding pruning even with small surfaces, while for harvesting, as large land surfaces are required, the entrepreneur finds advantageous introducing third party harvesting. In perspective, the total cost of production is lowered from 40.37 Euro/q to 32.85 Euro/q (-18.6%). Even compared to the average situation of the competitors the cost is lowered by 19.6%. The comparison of the new situation (after acting upon process innovation) with that of competitors leads to a clear economic advantage of the company examined compared to competitors.

## CONCLUSIONS

The evaluation of entrepreneurial decisions are crucial for creating and maintaining a competitive advantage. In this regard, neoclassical theory teaches us that among the possible options that the entrepreneur considers, he/she chooses those that allow him/her to achieve the maximum profit. In this work, we have analyzed the input an entrepreneur, who produces undifferentiated products, can act upon in order to create a competitive advantage.

The empirical analysis developed on a case study highlights that the innovation process determines a decrease in the average cost of production and which, equally to marginal revenue, lead the company from a loss to a condition of profit. This strategy is also applicable to small and medium-sized enterprises.

Process innovations thus lead the enterprise to achieve a competitive advantage that can be kept as long as competitors do not imitate the same strategy. However, even if the strategy is imitated by

other companies, the entrepreneur will always find it convenient to innovate (as long as the average costs are equal to marginal revenues) because, most likely, the market will lower prices and thus remaining anchored to a technological structure that is not state-of-the-art, would determine heavy losses to business.

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## AN EXPLORATORY RESEARCH ON FAN'S BRAND COMMITMENT TO BASKETBALL TEAMS

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### ABSTRACT

The current study is exploratory research that focuses on fan commitment to basketball clubs and supports that this is consequent to a series of attachments that extend further to, and transcend, just loyalty and satisfaction. The research utilizes the 4E's commitment scale, identifying commitment to have four underlying dimensions: (a) an "evaluation attachment" - the evaluation of brand performance relative to alternatives (b) an "experiential attachment" represents consumer satisfaction with the brand experience (c) an affective component of brand commitment is represented by the "emotional attachment" - the feelings of loyalty toward the brand and (c) an "engagement attachment" that encompass the degree of involvement with the brand. Methodologically, the research is based on two empirical survey studies, with separate and independent identities, with samples of 360 and 272 respondents respectively. Using Exploratory Factor Analysis (EFA) and nomological network analysis the research established the validity and reliability of a new and multi-dimensional scale to measure fans commitment (4E) to their basketball team (club). The value of the research lies primarily in its development of this multi-dimensional scale that provides a better insight to fans behavior than past researches' uni-dimensional scale. Furthermore, the dimensions of this new scale provide a better understanding of the four important constructs of loyalty, involvement, satisfaction and performance; themselves representing four types of fan attachments to their club.

**Keywords:** *Basketball, Club, Fans, Commitment, Brand, Attachment, Loyalty, Involvement, Satisfaction, Performance*

### INTRODUCTION

Sport marketing literature has dealt with the concept of fans' loyalty (Mahony et al., 2000) and fans' satisfaction (Kennett et al., 2001); however, only few studies (Bee and Havitz, 2010; Mahony et al., 2000) actually examined the concept of fans' commitment to their team. Even these, only used a direct

and single scale to measure fans' psychological commitment. Following Keller and Lehmann's (2006) work, this research study suggests that in sport marketing, commitment to a Basketball club is a series of attachments that extend further to, and transcend just loyalty and satisfaction. Utilising Shuv-Ami's (2012) 4E's commitment scale, we suggest that the commitment of fans to their Basketball club has four underlying dimensions: (a) the feeling of loyalty that represents the emotional attachment (b) the degree of involvement with their team, which represents the engagement attachment (c) the calculative component of commitment is based on satisfaction, which reflects the attachment consequent to the shared experiences with the team and (d) the perception of relative brand performance as the functional or evaluative attachment.

## **BRAND COMMITMENT – THE THEORETICAL FOUNDATION**

Most researches in marketing agree that *brand commitment* represents the relationship between the consumer and the brand. Nonetheless, while one school of thought views this type of relationship as reflecting an exchange-like nature (exchange perspective), the other views it as reflecting an attachment or a bond to the brand (attachment perspective). The exchange perspective views commitment as the desire to continue the durable and valued relationship with the brand in the future (Moorman, Zaltman and Deshpande 1992; Morgan and Hunt, 1994; Dholakia, 1997; Samuelson and Sandvik, 1997; Gurviez and Korchia, 2002; Johnson et al., 2006; Walsh et al. 2010; Belaid and Behi, 2011). The exchange perspective also involves such concepts as: developing stable relationships with partners; accepting short-term sacrifices in order to maintain relationships; and assuring the stability of the relationships (Anderson and Weitz, 1992). This exchange provides customers with the confidence of maintaining the brand's functional and affective benefits, which are greater than the benefits from ending the relationship (Geyskens et al., 1996).

The attachment perspective of brand commitment is viewed as the psychological and economic attachment that a consumer may have towards a particular brand (Thomson et al., 2005). In recent years, research in marketing using the attachment perspective of brand commitment (Hur et al., 2011; Iglesias, Singh and Casabayó 2011; Royo-Vela and Casamassima, 2011) relied mainly on the affective commitment component of employees to their workplace and were carried out primarily in the context of organizational behavior (Meyer and Allen, 1991). Klein et al. (2009), defined commitment as the degree to which individuals perceive that they are bound to a given target, recognizing that the bond or the attachment may also represent feelings and not just perceptions. The relationship with the brand is based on a "series of attachments" (Keller and Lehmann 2006, p. 745) and on brand equity as the critical driver (Park et al., 2010).

Following the above theoretical framework, this research suggests that brand commitment includes four types of attachments: the functional or "evaluation attachment" - the evaluation of brand performance relative to alternatives, the "experiential attachment" represents consumer satisfaction with the brand experience, the "emotional attachment" - the feelings of loyalty toward the brand and the "engagement attachment" that encompass the degree of involvement with the brand.

## DEVELOPING THE HYPOTHESES

The 4E's (Evaluation, Experiential, Emotional and Engagement) attachments to the brand commitment scale are reflective (Shuv-Ami, 2012). That is, the direction of causality (Jarvis et al., 2003) relates to the calculative and affective components of commitment, and from them to the specific measures of the 4E's. Brand commitment, defined here as "a degree of attachment" to the brand, is reflected in each of the four dimensions that underline it. It is a reflective model whose dimensions reflect a high correlation (Jarvis et al., 2003). These four related constructs have been widely discussed in the marketing literature. This scale combines loyalty, involvement, satisfaction and performance to represent the degree that the 4E's are attached to the brand or brand commitment. From the above theoretical research therefore it is hypothesized here that:

**H1:** Four oblique factors - involvement, satisfaction, loyalty and performance - suffice to account for covariations of the brand commitment scale items.

The second hypothesis attempts to establish the nomological validity of the brand commitment scale suggested in the current research. This scale's validity is tested against four variables: overall attitude, the preferred brand, purchase intention and recommendation.

Models and theories of consumer behavior (e.g., Howard and Sheth 1969, Oliver 1999), suggest that attitude affects satisfaction and loyalty, which in turn affect preference. Since satisfaction and loyalty are part of the commitment scale (as constructed in the current research and as suggested by Allen and Meyer (1990), it is methodologically valid to hypothesize that compared to the uncommitted consumer, most committed consumers will display a higher overall regard and preference for the brand they are committed to. In the "Customer Development Process" model (Kotler and Keller, 2009, p.157), clients who are members in a customer club tend to be brand advocates. Similarly, Hofmeyr and Rice (2000, p.6) argued that "at a higher end of commitment, committed consumers act as advocates for the brand, exhorting others to use it." We therefore hereby hypothesize that:

**H2:** The total score of brand commitment will correlate positively with overall attitude toward the brand, recommendation and purchase intentions, and brand preference.

## RESEARCH METHODOLOGY

The research is based on two separate empirical survey studies, with separate and independent identities.

1. Study 1 comprised 360 Israeli basketball fans. Participants ages ranged between 17 to 77 with a mean age of 36.9 ( $sd = 14.2$ ). 56% were males, while 58% had higher academic education.
2. Study 2 comprised 272 Israeli basketball fans. Participants ages ranged between 17 to 81 with a mean age of 38.1 ( $sd = 14.5$ ). 59% were males, while 58% had higher academic education.

A major purpose of the present research analysis was to construct a new operationalization for the re-conceptualized brand commitment construct for fans of sport clubs. All four measures of the suggested commitment dimensions adopted from Shuv-Ami (2012) used three items on a 10-point agree-disagree scale.

Additionally, overall attitude was measured accordingly: "Please rate from 1 to 10 the way you generally feel about (think of) your team, where one indicates 'a very poor brand' and 10 'a very good brand'". Recommendation intention was measured using a modified Markey and Reichheld (2008) advocate measure (Net Promoter Scores - NPS): "Please rate from 1 to 10 how likely are you to recommend to your friends or relatives to be a member of your team fans' club, where 1 indicates 'Definitely will not recommend' and 10 'Definitely will recommend'". Purchase intention was measured by the question "Please rate from 1 to 10 how likely are you to go to your team's games next season, where 1 indicates 'Very unlikely' and 10 'Very likely'".

## RESULTS

### *STUDY 1: Exploratory Factor Analysis*

The 12-items Brand Commitment Scale was subjected to exploratory factor analysis with oblique rotation. According to the criteria of eigenvalue  $> 1$  and Scree test (Hair et al., 2006) four factors were extracted. On the basis of the hypothesized structure and items content, we labeled the four factors: involvement, satisfaction, performance and loyalty. These factors accounted for 88.8% of the common variance, above the recommended minimum threshold of 60%. The four factors solution is presented in table 1. With the exception of one item, all items loaded highest on the appropriate factor and had substantive loadings that exceeded .5. Only one item which presumed to reflect loyalty loaded one of the involvement factor as well. No other item found to have cross loading exceeded .4 on the non-primary factor.

Alpha coefficients for the three-item performance, involvement, loyalty, and satisfaction were .95, .93, .92, and .92, respectively. Correlations among the unit-weighted scale scores were similar to those between the factors. Correlations among the factors ranged between .66 to .86 and none of the correlation were found to exceed .90, suggesting some discrimination between the factors. The substantial correlations found between the factors justified the use of the oblique rotation and suggested higher order constructs.

Table 1: Factor analysis of the basketball brand commitment scale

Brand commitment items	Factors				Communalities
	Performance	Involvement	Loyalty	Satisfaction	
– I connected and am emotionally involved with my Basketball team	.96				.93
– My Basketball team is important for me	.94				.91
– I am involved and interested in my Basketball team	.83				.91
– I am satisfied with the way my Basketball team meets my expectations		.98			.89
– I am satisfied with my Basketball team		.97			.89
– I am satisfied with the way my Basketball team suites my needs		.74			.85
– My Basketball team has higher quality than other competing teams		.51	.48		.84
– My Basketball team has advantages that other competing teams don't			.97		.91
– In most aspects, my Basketball team is better than other competing teams			.95		.92
– I will not stop being a fan of my Basketball team even if they lose every game this season				.72	.88
– I will not become a fan of another Basketball team even if my Basketball team loses every game this season	.39			.61	.88
– I consider myself loyal to my Basketball team	.38			.59	.84
Rotated eigenvalue	3.60	3.22	2.48	1.36	
% of explained variance <sup>a</sup>	30.0%	26.8%	20.7%	11.3%	
<u>Correlations and reliabilities (in parentheses)</u>					
Performance	(.95)				
Involvement	.66**	(.93)			
Loyalty	.67**	.76**	(.92)		
Satisfaction	.86**	.77**	.73**	(.92)	

Note. N = 360.

All factor loadings > .30 are presented in the table.

a. Rough estimates based on eigenvalues from the orthogonal, varimax rotation (cannot be estimated for the oblimin

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*rotation due to confounded factors contribution).*

**\*\***  $p < .01$

### *STUDY 2: Nomological network*

Brand commitment scale items were as in study 1 (above). The internal reliabilities for the brand commitment sub-scales were high: involvement  $\alpha = .91$ ; satisfaction  $\alpha = .92$ ; loyalty  $\alpha = .94$ , and performance  $\alpha = .93$ . Internal reliability for the total scale was high as well (Cronbach's  $\alpha = .96$ ).

The nomological validity of the basketball brand commitment scale was assessed by testing its relations with three relevant scales in its hypothesized nomological network. Table 3 presents the correlations between the research variables. As expected, results indicate significant and strong correlations between the basketball brand commitment scores and overall attitudes, recommendation, and intention. Thus, these correlations provide evidence for the nomological validity of the basketball brand commitment scale.

*Table 3. Correlations between the research variables.*

	Brand commitment	Overall attitude	Recommendation	Intentions
Overall attitude	.58***	--		
Recommendation	.64***	.66***	--	
Intentions	.52***	.45***	.62***	--

*Note.* \*\*\*  $p < .001$

## CONCLUSIONS AND FURTHER RESEARCH

Using Exploratory Factor Analysis (EFA) and nomological network analysis the current research established the validity and reliability of a new and multi-dimensional scale (Shuv-Ami, 2012) to measure fans commitment (4E) to their basketball team. A multi-dimensional scale of fans commitment may provide a better insight to fans behavior than previous uni-dimensional scale researches (e.g. Mahony et al., 2000; Bee and Havitz, 2010) suggested in the sport marketing literature. The dimensions of this new scale provide better understanding of four important constructs loyalty, involvement, satisfaction and performance. These constructs represent four types of attachments fans may have to their basketball club.

As for all brands, the attachment of fans to their basketball team is both functional and emotional (Rusbult and Buunk, 1993; Klein et al., 2009). While the functional aspect of the attachment represents the evaluation of the team *performance* ("evaluation attachment") and the *satisfaction* with the experience the fan has with his team ("experiential attachment"), the emotional aspect of the

attachment represents the feelings of *loyalty* ("emotional attachment") and *involvement* with everything that related to the team ("engagement attachment"). Thus the commitment of fans to their club is a composite of all of these four dimensions and not uni-dimensional.

The research suggests that brand commitment, as measured by the 4E's scale, is a valuable and valid concept in measuring fans' attachment to their basketball club. Future research may study the impact of this measure on each dimension of basketball team commitment with regards to fan behavior, both at the game and outside it. More importantly though, this research has, peripherally, also highlighted the need to study and analyze fans in a multi-dimensional and multi-context manner. This will not only provide valuable scholarly knowledge, but will also furnish clubs with an understanding of the fans' true and underlying needs/wants and the means to achieve the maximum commitment; and ultimately maximize both the number of fans and the benefits to the club, per fan. It is suggested therefore that further research is undertaken with the task of delineating the fan's profile both in terms of exhibited behavior and its causes; and to construct a comprehensive value chain/cycle incorporating all stakeholders.

In club management terms: be it towards economic, social or other type of subjectively perceived club 'success' (Rossi et al., 2013; Kartakoullis et al., 2013a), a club's destiny is largely defined by its ability to build and sustain a substantial mass of fans. Where the latter are 'real' in the scientific, above-presented sense, it is difficult to even differentiate between the club and its fans. Their relationship is more than strong, it is symbiotic. Understanding the nature of fan commitment, and comprehending its breadth, depth and cause is key to understanding the club itself and the way forward.

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## LOCAL TOURISM AND SOCIAL MEDIA: THE EFFECTS OF DIGITAL TECHNOLOGY ON CUSTOMERS AND TERRITORY<sup>1</sup>

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### ABSTRACT

This paper aims at analyzing the impact of web tools, especially social networks, on local tourism, paying attention to the effects of the strategies used for the valorization of the territory. A Facebook page was created to promote a tourism event in the Tuscan Maremma in Italy. Its users activity has been monitored. Thanks to Insights, it was possible to analyze the increase in consumer's personal liking of the event during two editions, 2010-2011, and the increase in arrivals and stays on the territory during the same period. The results of data analysis show that Facebook is a powerful communication tool, a suitable means for spreading information, and thus, a tool for the valorization of the territory for tourism purposes.

**Keywords:** *Tourism, Territory, Social Network, Facebook, Consumer, Communication Tools.*

### INTRODUCTION

The continuous media evolution leads to endless transformation of society and economy, of production and consumption system, of companies' organizational structure (Arnesano, 2011; Artusi, 2008; Caruso, 2003; Cercola, 1999; Ciriaco, 2000; Di Matteo and Caroli, 2001; Kotler 2007, 2011; Kotler and Armstrong, 2006). The traditional media (daily newspaper, radio broadcast...) spread information through a *one-to-many system* and they are characterized by poor interactivity and information asymmetry; the message, in fact, is selected by an editor and the reader/audience can not intervene or choose the contents. The limited spread of traditional media and their communication method have caused a drastic revolution in the communication system since the second half of the 90's. Internet has grown out of many factors: the globality of the web, the rejection of one-to-many communication system and the willingness to help people spread their ideas (*many-to-many communication system*). Personalized communication develops. It exploits the direct contact with consumer and it enables producers to get important information on preferences, attitudes and

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<sup>1</sup> This papers the shared work of Silvestri who wrote the §1.1, 2, 2.1, 3.1, 3.2 and Piccarozzi who wrote the Introduction, § 1.2, 3.3 and Conclusion

comments about products. Thanks to the evolution of the communication tools, the internet has been gradually improved over the years, shifting from the Web 1.0, characterized by static pages, to the more recent Web 2.0 which allows users to test new functions, and finally, to the web 3.0 which uses sophisticated software for better data management (Alexandru and Acatrinei, 2011; Caruso, 2003; Chlebišová, et al., 2011; Ciriaco, 2000; Fidler, 2000; Hinnis, 1982; Maurya, 2011). Micelli and Prandelli, 2000; Minestrone, 2006; Pastore and Vernuccio, 2008; Perrini, 2000; Raiport and Jaworsky, 2001; Verona and Prandelli, 2006; Miguéns et al. 2008; Milano et al. 2011; Sigala et al., 2012). The change in communication tools and in consumer behavior leads also to the change in marketing: from a passive and product-oriented marketing (Kotler, 2007, 2010;) to relationship marketing (Alvarez et al., 2011; Contaldo and Largo, 2006, Costabile, 2001, Gambetti et al. 2012; Lanier et al., 2013) and then to web marketing (Cercola, 1999; Chiarvesio and Di Maria, 2011, Croli, 2009; Cozzi, 2010; Di Matteo and Caroli, 2001; Eccleston and Griseri, 2008; Estanyol, 2012; Ferrandina, 2007; Franch, 2010; Lutz, 2011; Micelli and Prandelli, 2000; Prandelli and Verona, 2002; Verona and Prandelli, 2006)

The relationships with consumers have already been built before the introduction of internet (Aaker 1991, 1996; Busacca, 2000; Chaudhuri, Contaldo and Largo, 2006, Costabile 2001; Delgado et al., 2003; Gronroos, 1994; Holbrook 2001; Kapferer, 2004; Keller, 1993, 2003; Schmitt, 1999; Vicari, 1995) but this tool enables companies to gain important information easily, less expensively and more effectively. For the first time companies can get in touch with consumer cheaply while he stays at home in order to provide personalized information to him, to get reviews, comments and complaints. Companies can let consumers produce the product directly by creating a real dialogue with him (websites, emails, chat). Web marketing develops from that prerequisite. Ferrandina (2007) describes the web marketing as “the marketing applied to the web; the set of techniques and tools which allows developing market relationships through the internet”. The traditional communication tools enable companies to reach a large amount of users and potential consumers, but a poor segmentation is created. On the web, defining exactly the target is necessary in order to build a customer relationship based on confidence and to provide the most personalized product to the customer (Chiarvesio and Di Maria, 2011, Cozzi, 2010; Croli, 2009; Estanyol, 2012; Franch, 2010; Kotler et al. 2010; Lutz, 2011; Qirici et al. 2011; Zarabara, 2009).

## THEORY

Tourism industry has been one of the first sectors to recognize the potential of internet for its business. Online tourism success depends on many factors, including very competitive prices, differentiated offer and new services offering. All these factors have gradually changed users attitudes (Abella-Garce's et al, 2004; Baloglu and Pekcan, 2006; Buhalis, 2003; Cozzi 2010; Elliott and Boshoff, 2009;

Hussein, R. et al, 2012; Martini 2005; Qirici et al. 2011; Scorrano, 2011; Verdinejad, et al. 2011; Zarabara, 2011). Getting, producing and spreading information are very important actions for the tourism activity. An effective information management is fundamental because of the intangibility of tourist products and services, and the distance between tourist products/services and consumers (such a distance can generate an elevated risk perception during the purchasing phase) (Alkharabsheh et al., 2011; Cozzi 2010; Crowston and Myers, 2004; Drèze and Zufryden, 2004; Martini 2005; Niemann et al., 2008; Scorrano, 2011; Thébault et al., 2013).

Technology evolution has several effects on tourism. The information is more accessible, the consumers can compare products with tourist destinations more and more explicitly and they can organize their holiday all by themselves (Abella-Garcés et al, 2004; Elliott and Boshoff, 2009; Hussein, R. et al, 2012 Kotler et al., 2007; Patricia, 2008; Primorac et al., 2012; Smithson et al, 2011; Yu-Lun et al. 2012 ).

Finally, travel arrangements through travel agencies tend to decrease because of the availability of online holiday packages.

Tourism is an international economic sector and the most extended one. The sector of international travels generates a turnover of more than one trillion dollars and counts more than one billion travelers (Kotler et al. 2010). Technology helps boost tourism and guarantee traveler's positive experience during the holiday.

The most innovative tourism companies use technology to redefine their organizational structure (running cost optimization) and to foster the relationships with their business partners in order to generate value for their customers. The potential of the internet to promote and sell tourist products is closely related to internet usage and diffusion among the final consumers. In 2012 more than two billion online users were counted<sup>1</sup>. Online commercialization initiatives undertaken by traditional producers and tourism companies (Tour Operators, Travel Agencies) represent a threat to traditional brokerage companies such as retail travel agencies. The whole system is jeopardized by the launch and the development of online competitors and by the increasing competition offered by operators which use tools that allow independently managing the relationship with customer wherever he is, and which sell products at competitive prices through that new online tool. The consequence is a disintermediation in the tourism industry and the death of traditional suppliers (Chiappa , 2013; Cozzi 2010; Chiervesio, Di Maria 2011; Elliott and Boshoff, 2007; Primorac et al., 2012; Sanayei et al. 2011; Smithson et al, 2011).

After strong growth, even the brokerage websites that intermediate between company and customer (Venere, Expedia) have undergone a change in trend. As highlighted in 2006 by Jupiter in his research

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<sup>1</sup> [<http://www.internetworldstats.com/stats.htm>]

and stressed by Michelle Higgins in an article appeared in the New York Time in February 2007, online promotions have been increasing as well as people's inclination to book directly through the website of the service provider (hotels, etc.) without needing brokerage websites. However, the presence on brokerage websites is required to gain visibility and findability (Zarabara, 2011).

Tourism services belong to that category of services that most enjoys online visibility and generates high volume of sales thanks to the internet (Hussein, R. et al, 2012 Kierzkowsky et al. 1996, Kotler, 2010; Primorac et al., 2012; Yu-Lun et al. 2012 ).

Tourism services are, in fact, perfect for online business. Because of their complexity, they can be placed on a website, exploiting multimedia and hyperlink communication (Clerides et al., 2008; Cozzi, 2010; Dunn et al., 2009; Elliott and Boshoff, 2007; Hills and Cairncross , 2011; Hussein, R. et al, 2012; Martini 2005; Martini, 2009; Patricia, 2008; Primorac et al., 2012; Yu-Lun et al. 2012;

The social network is a powerful tool to promote tourism. Nowadays social networks represent marketing strategies utilized by tour operators, even by those that were more skeptical towards the web because of a low knowledge and awareness about those new communication tools. The characteristics of social networks like Facebook that drive the tour operators to choose them are the following: (1) virality (interesting news or particular applications spread more rapidly and exponentially, such as viruses); (2) website's high visitor frequency; (3) high availability of information about unique users (Facebook offers its clients a specific profile of people on the social network in order to better invest in advertising) (Bellstrom, 2011; Borgato et al. 2009, Conti 2010, De Moya and Jain, 2013; Smithson et al, 2011; Verdinejad, et al. 2011; Zehrer and Grabmüller, 2012). Facebook is a perfect virtual place for managing, promoting and spreading information about any kind of event. No matter the kind of event (a conference, a dinner for few people, a public meeting), when managing an event, Facebook is the perfect tool to spread the word, to encourage word-of-mouth, to promote attendance and to publish multimedia materials about the event (Bellstrom, 2011; Conti, 2010; De Moya and Jain, 2013; Zehrer and Grabmüller, 2012). Creating an advertising campaign on Facebook is simple, immediate and suitable for all people thanks to a platform which enables users to create an advertisement without needing an intermediary. Facebook offers a wide range of tools for every need to develop advertising/promotional campaigns. With regard to marketing and promotion, other two important qualities of this tool are the flexibility and the possibility to limit the target. Several tools are available for advertising a product, a service or a company and for finding contents outside Facebook with the aim of sharing them on the social network, increasing, therefore, the word-of-mouth (Conti, 2010). Moreover, page admins can understand if people are engaging with the content they publish. Thanks to *Insights*, Facebook provides page admins aggregated anonymous insights about people's

activity on their page<sup>1</sup>. This is an efficient tool to analyze and verify the impact the contents published on the social network's pages have on users, obtaining information about tastes, attitudes and preferences of consumers.

All this is also due to the change in consumers' behavior and tourism structures. On the one hand, the user makes a more and more clever use of the web. Some time ago, the user hardly found what he needed, now he can use websites and search engines better. On the other hand, hotel industries have improved their online marketing strategies, reaching their target directly (Kotler et al., 2007; 2010; Zarabara, 2011). As documented by the *European Travel Commission*<sup>2</sup> and the research of BDRC (March 2008)<sup>3</sup>, figures explain why tourism industry should invest in web marketing as well as in territory valorization for tourism purposes.

## CASE STUDY

The case study aims at demonstrating that the web is a valid tool of territory promotion and valorization for tourism purposes, and at verifying the impact of social networks on users. The studied event was organized to promote an Italian area of the Tuscan Maremma, in particular a municipality in the province of Grosseto. The aim was to attract the highest number of national and international guests in order to revalue the territory and the local traditions in a completely different way. The organizers wanted guests and residents to live an amazing experience and not a simple holiday. The emotional aspect and the event engagement played an important role in the event's success. Another important aspect was the multithematicity of the event that allowed developing different tourism typologies: wine and food, sport, wealth and culture. Both editions took place in June and July. The first edition took place from July 15-18, 2010, the second one from June 24 to July 2, 2011. The choice of the time period was not accidental, but it was due to the intention of creating a captivating event during months of low tourism demand. Studies on local territory have showed that the presence of tourists on the territory is strong only in August, therefore an intervention in tourism development has been necessary in June and July. Furthermore, the research has proved that the presence of foreign tourists in July is stronger than in June. The event's aim was also to extend the duration of the stay. Data has shown that the average length of stay is 2,38 days; the average length of stay of foreign tourists is 1,27 day more than the average of Italians (average length of stay of tourists from 2005 to 2009)<sup>4</sup>.

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<sup>1</sup> [<http://www.facebook.com/help/search/?q=insights#!/help/pages/insights>]

<sup>2</sup> [<http://www.etcnewmedia.com>]

<sup>3</sup> [<http://www.travolution.co.uk>]

<sup>4</sup> [[www.regione.toscana.it](http://www.regione.toscana.it)]

With regard to the communication tools utilized, the creators of the event invested much in social networks as Facebook, Twitter and Youtube in order to avoid using the traditional and static communication method that does not inspire confidence and does not communicate with people anymore. The social networks established great interaction among people who clicked “like” or followed the event’s page.

The communication tools chosen, that is web and social networks, aimed at boosting the number of real people that could know and talk about the event, fostering, then, a faster and more immediate word-of-mouth. The objective was to create a 2.0 event in which the audience could become an integral part of the show. Particular initiatives were adopted to drive tourists to generate positive conversation on the territory that hosted them.

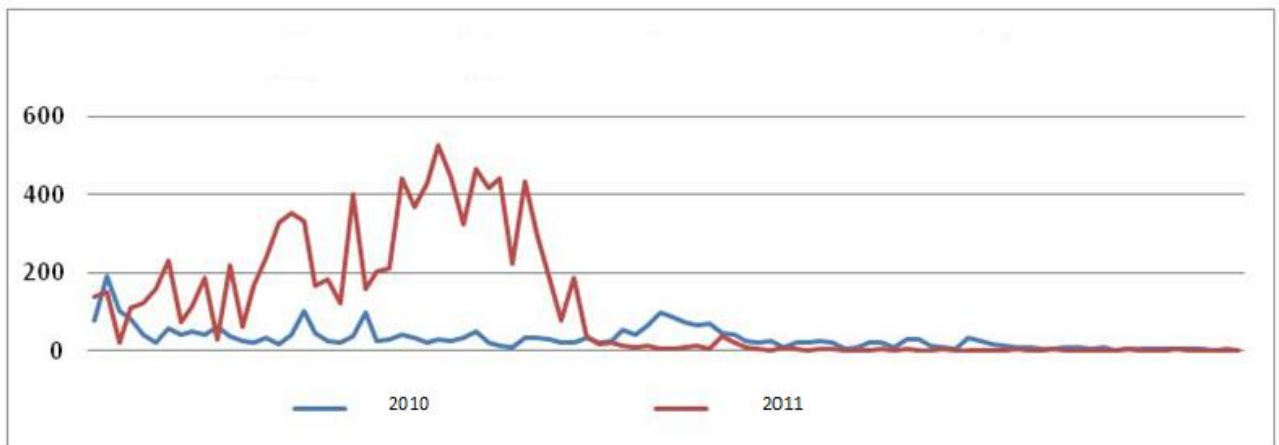
## METHOD

The Facebook page of the event was launched on 30 May, 2010. Through the *Insights* (a data collection that provides an overview of all the activities on the page) it is possible to analyze the increase in liking due to the powerful communication tool, Facebook, by making a comparison between the two editions. The analysis focuses on the same time frame, that is from 1 June to 31 August.

## FINDINGS AND DISCUSSION

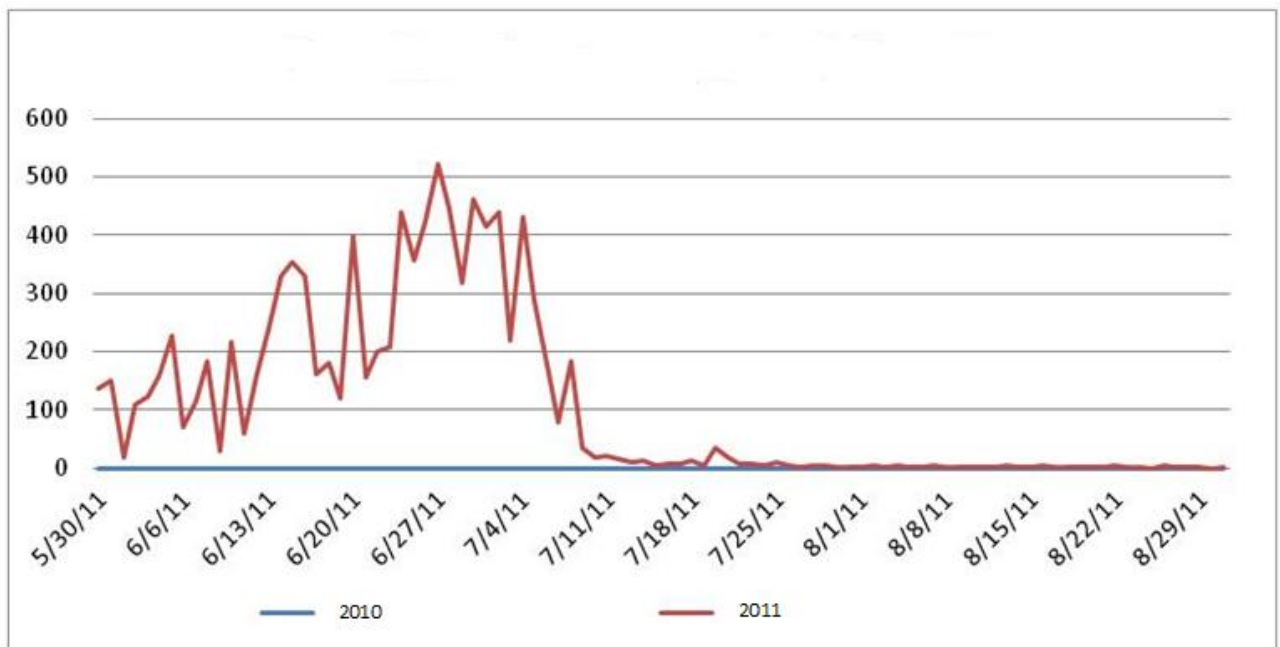
Few hours after the registration on Facebook, 79 users registered on the page and the next day 191 users interacted with the Facebook page. In the days before the beginning of the event the number of followers increased. On 13 May, 2013 the users registered were 1.729. When confronting data, a remarkable increase in the number of active users can be observed during the second edition. In 2011 people who liked the page increased; active users’ interaction increased daily: 439 users registered on the opening day of the event (on 24 June, 2011) and a peak of 524 users on 27 June, 2011. After the end of the event a similar growth was observed, although a sharp decrease in the number of users occurred immediately after the event and it lasted until the end of the period under scrutiny. However, the number of daily active users in the second edition increased considerably, showing a triple figures growth, as evidenced by the comparison between the first edition in 2010 and the second one in 2011. (Fig.1)



**Figure 1 – Daily active users, 2010-2011**

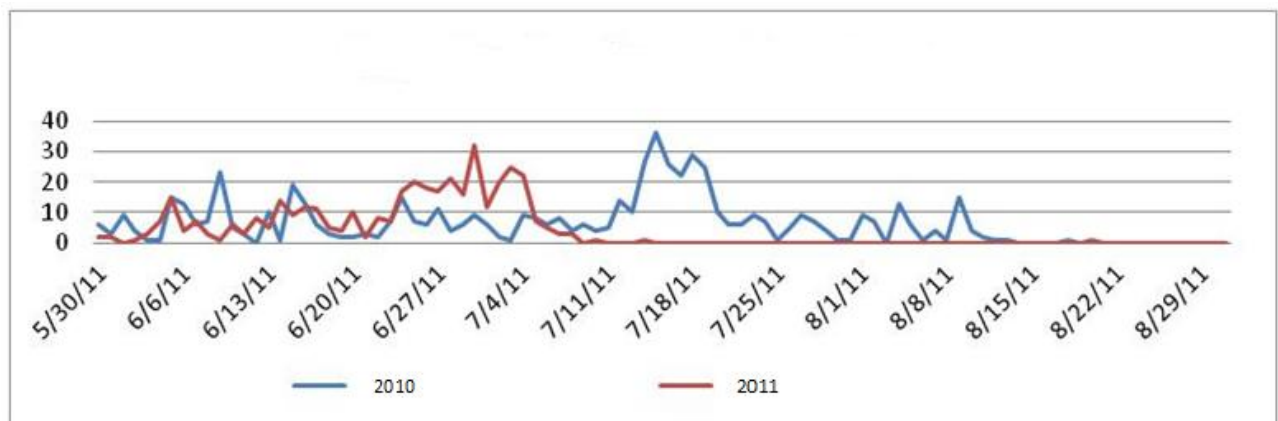
[https://www.facebook.com/#!/insights/?sk=po\\_100353203347936:Insights users pages](https://www.facebook.com/#!/insights/?sk=po_100353203347936:Insights%20users%20pages)

By analyzing posts, it is possible to observe that during the first edition post views were almost null, during the second edition the research shows different results. The increase in post views was also due to the help of those people who attended the event in 2010 and who contributed to word-of-mouth.(Fig. 2)

**Figure 2 – Post views, 2010-2011**

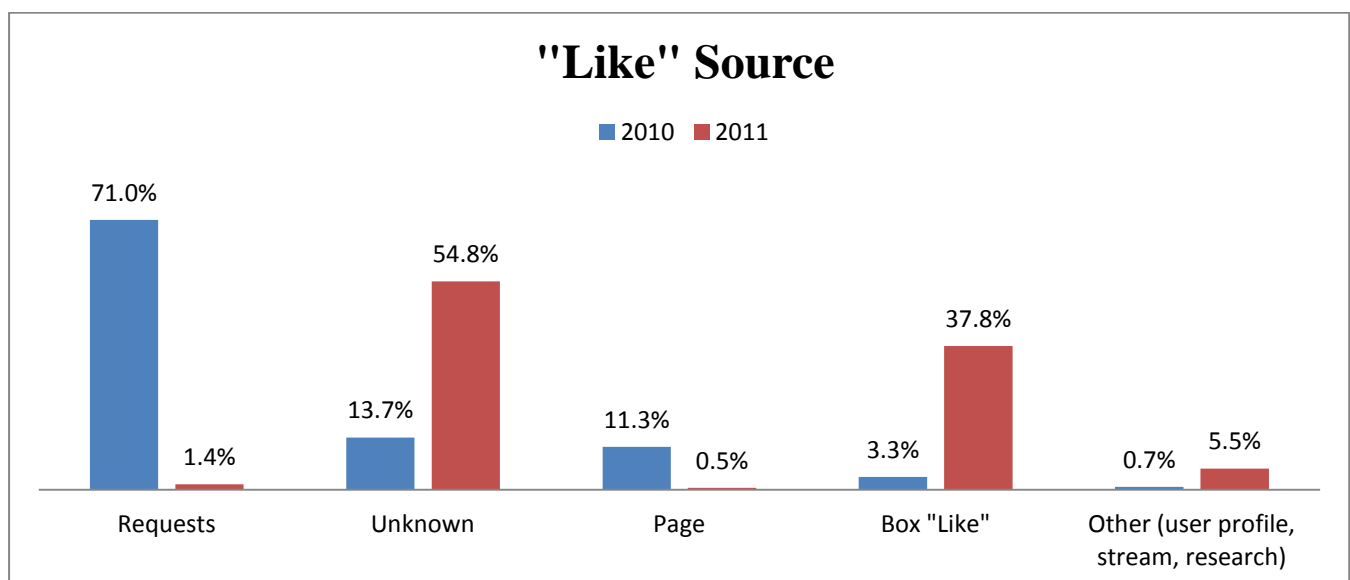
Source: [www.facebook.com: Insights daily active users](https://www.facebook.com/#!/insights/?sk=po_100353203347936:Insights%20users%20pages)

With regard to “likes” on posts, it is important to reaffirm that the two editions took place in different time frame. “Likes” on posts in 2010 had had steady trend for the three months taken into consideration. The trend in 2011 was not that steady. Users clicked “like” on posts especially during the nine days the event lasted (Fig. 3).

**Figure 3 – “Likes” on posts, 2010-2011**

Source: [www.facebook.com](http://www.facebook.com): Insights daily active users

The research shows differences in the “like” source between the two editions. The main source in 2010 was fan page request, in the second edition the “unknown” sources (sources that Facebook does not include in data collection) prevailed. Moreover, more users clicked “like” directly on the web site of the event. It is clear that Facebook users search for the event page autonomously and they register by clicking “like”. (Fig.4)

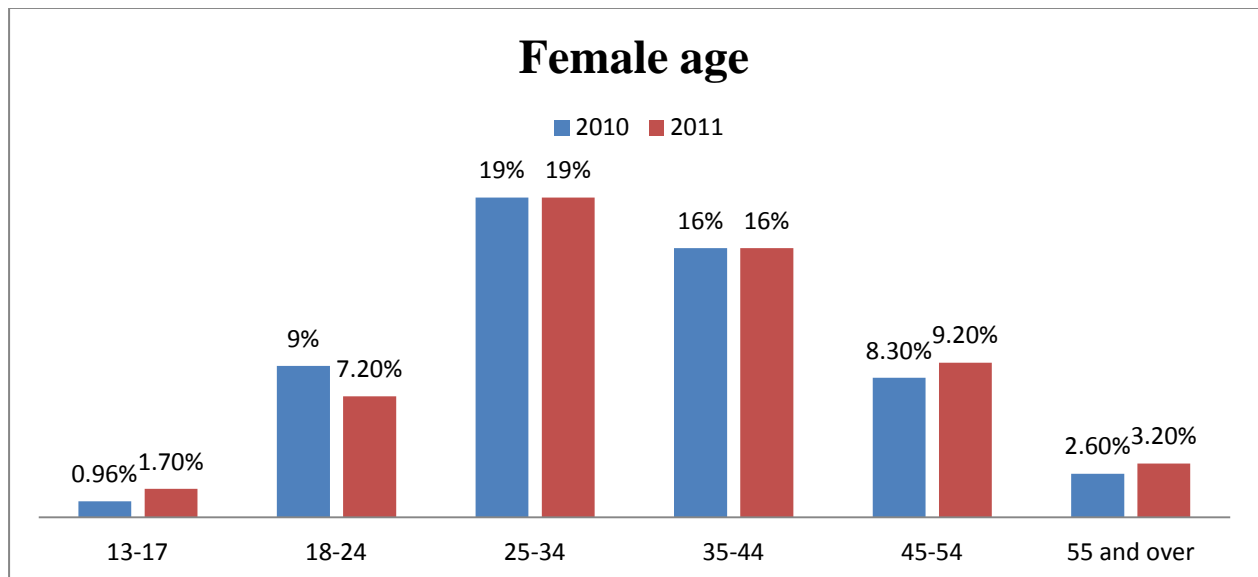
**Figure 4 – “Like” Source, 2010-2011**

[www.facebook.com](http://www.facebook.com): Insights “Like” Source

Facebook Insights analyzes demographic data about the users who like the page based on the age and gender information they provide in their users profiles. The percentage of females registered on the page in 2011 was at 56.30%, reporting a 0.8% growth from 2010, which was at 55.86%. By comparing

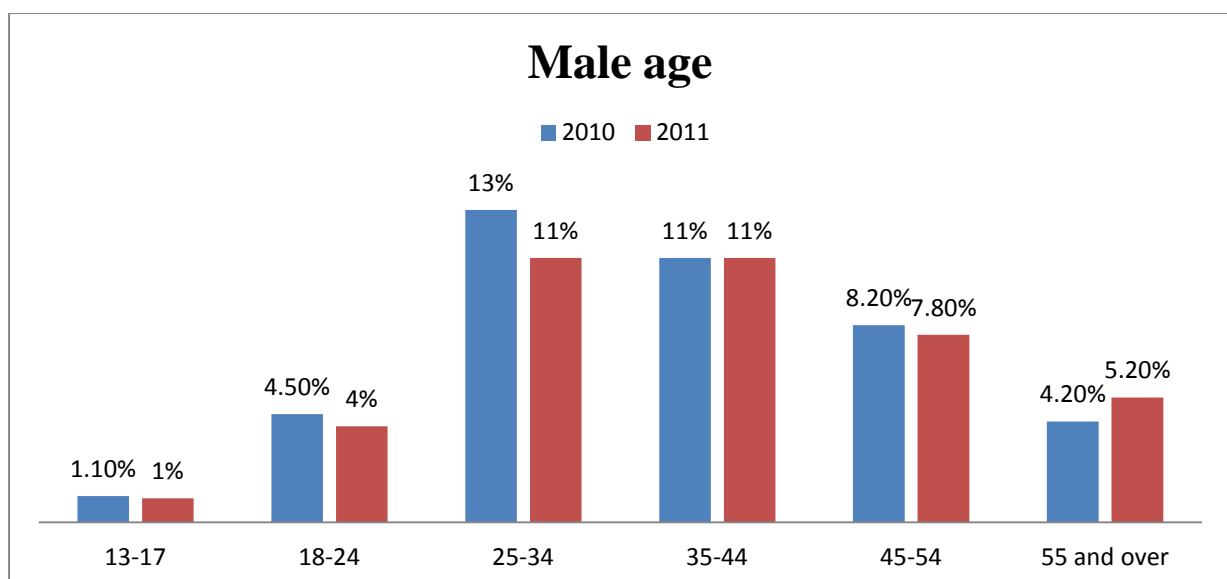
the demographic data concerning the two editions of the event, it is clear that the percentage of women aged between 25 and 34 years, and 35 and 44 years held steady, whereas there was an increase by 77.1% in the number of users aged between 13 and 17 years, by 10.8% in the number of women aged between 45 and 54 years, and by 23.01% in the number of people over 55 years old. The number of users aged between 18 and 24 years decreased by 20.0%. (Fig.5)

**Figure 5 – Demographic data, Women 2010-2011**



Source: our elaboration of data <https://www.facebook.com>: demographic data

**Figure 6 – Demographic data, Men 2010-2011**



Source: our elaboration of data <https://www.facebook.com>: demographic data

The percentage of males registered on the page in 2011 was at 40%, showing a 4.8% decrease from 2010, which was at 44.8%. In 2011 the number of people aged between 18 and 24 years (4.50% in 2010,

4.0% in 2011), 25 and 34 years (13% in 2010, 11% in 2011), 45 and 54 years (8.20% in 2010, 7.80% in 2011) decreased. The percentage of people aged between 13 and 17 years, 35 and 44 years held steady. The second edition recorded an increase in number of people over 55 years (4.20% in 2010, 5.20% in 2011) (Fig.6). Finally, by observing the graphs of figure 5 and 6, it is possible to point out that women were more engaged than men with the Facebook event page both in 2010 and in 2011. Only men over 55 used the social network more than women.

Moreover, one of the goal of the event was to captivate especially young people aged between 25 and 34 years and both editions succeeded in doing it, despite a small decrease in 2011.

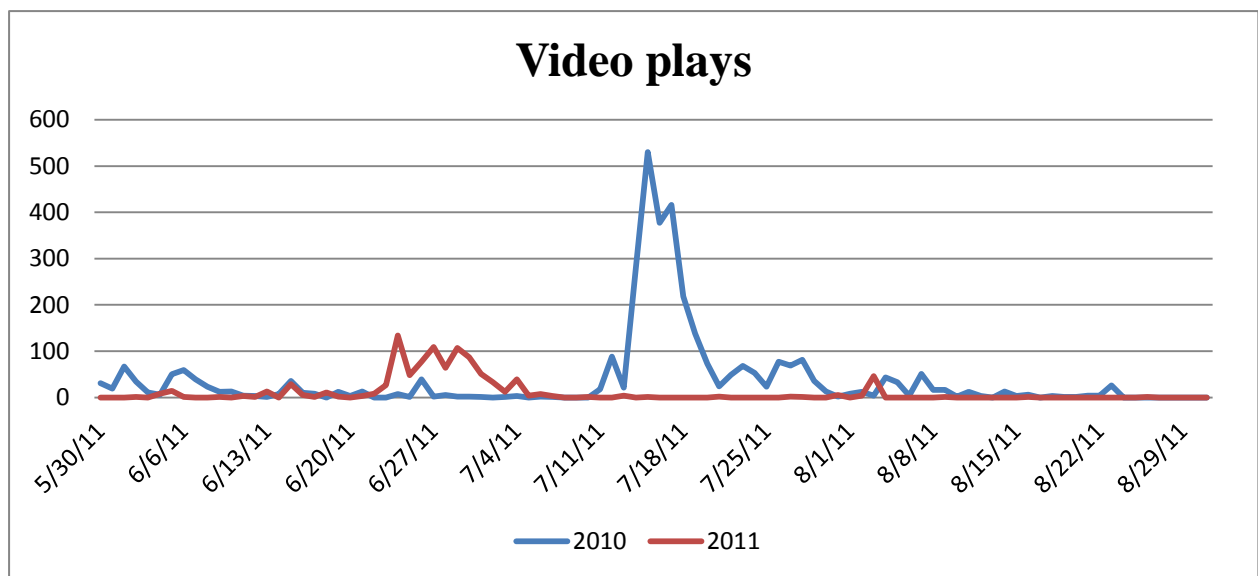
Important information also concerns the countries of origin, the Facebook location data, sorted by country, about the people who liked the page. It deals with information useful to identify the potential guests and the virality of the web page.

1.463 Italians liked the event in 2011, recording a 29% increase from 2010 when they were 1.133. The number of Americans (13 in 2010, 17 in 2011), English people (7 in 2010, 16 in 2011) and Argentines (6 in 2010, 9 in 2011) increased. The number of Spaniards decreased (9 in 2010, 7 in 2011).

With regard to data sorted by Italian cities, both in 2010 and in 2011 most guests came from Rome (552 people in 2010, 636 in 2011); there was a strong increase in number of tourists from Milan (109 people in 2010, 223 in 2011).

Insights allows page admins to observe data concerning media consumption by users including “photo views” and “video plays”.

Video plays and photo views occurred especially during the duration of the event both in the first edition and in the second one. In 2010, however, media consumption also continued after the end of the event, that was probably due to the different length of the event. All this proves that users logged in to Facebook page to relive the memories of that past experience. (Fig. 7)

**Figure 7 – Video plays, 2010-2011**

Source: <http://www.facebook.com/>: media consumption

However, as figure 7 shows, users were more engaged in media consumption during the first edition than during the second one. Curiosity was probably what drove people to click on the posts.

Facebook page became a tool for the description and popularization of the event, showing good interaction with audience. It was a good virtual place where users could give excellent feedback about the emotions experienced.

The comparison of such data is important, the event surely reached its main goal of touching its audience emotively. The emotions were conveyed thanks to positive word-of-mouth which may be considered the most powerful advertising tool.

Another goal of the event was to increase the number of tourists in June and July on the territory. When comparing data of 2009 and 2010, it can be observed an increase in arrivals by 18,27% in June 2010, and 4% in July 2010. Data concerning presence shows an increase by 16.09% in June and 4.52% in July<sup>1</sup>. June and July gave the best figures of the last five years in terms of presence. The increase in presence was by 4.62% in June 2011 and 11,01% in July 2011, compared to 2010. Data proves that in 2011 tourists stayed longer in the accommodation establishments of the territory. Data confirms that the event succeeded in boosting the tourism sector in the studied area during June and July, a period of low tourism demand. Furthermore, the study shows a strong increase in arrivals and stays in the second edition of the event, probably thanks to positive word-of-mouth and innovative communication.

<sup>1</sup> [www.regione.toscana.it](http://www.regione.toscana.it) (2002), "Statistical information": ARRIVALS refer to the number of guest arrivals in accommodation establishments, they represent the frequency of the demand for accommodation services. PRESENCE indicates the intensity of the phenomenon and it is measured with the duration of the stay of tourists in the accommodation establishments.

## CONCLUSION

A real evolution of communication tools has occurred over the years. The Web 2.0 has led to changes in society and it has demonstrated that the web can be a good tool to communicate with consumer. Moreover, the Web 2.0 has played a specific role in the local marketing and in the tourism sector. The tourism product is historically a good product for sale at a distance. Internet is a perfect tool to sell tourism products since it provides potential customers, already willing to purchase products at a distance, with an additional way to assess the offer. In some cases, web sites and social networks have replaced paper. Customers surf, search, buy, study, exchange opinions and ideas. Customer wants to be informed. In an age in which it is not clear if globalization has brought advantages or disadvantages to global economy, it is possible to affirm that the advantages are tangible in the tourism sector. Internet gives huge visibility to all online tourism providers which do not fear global competition (contrary to other economic entities that fear it) because they sell a territory-bound product (Zarabara, 2011).

Web presence based only on a web site is not enough to benefit business entities, it is necessary to access many social network sites potential customers are familiar with: thanks to social networks, it is possible to communicate with customers, making them feel important. Moreover, the web facilitates the exchange process, reduces the waste of resources and makes the promotional activity efficient.

Customer loyalty is important in this context, actually, it is crucial. A loyal customer conveys his satisfaction to all his contacts, talking positively about his experience. Word-of-mouth is a good tool since it occurs among people with similar characteristics who, after having had a good experience, talk about it to other people, creating curiosity among potential visitors. The consumer has become more demanding, he purchases a product only after careful research, and internet is the most suitable tool to acquire information (Costabile, 2001; Kotler and Keller, 2007).

Tourists follow such a method: they visit blog and social networks to get information, to discuss, to dialogue, to exchange opinions. Exploiting the internet to promote a territory is a golden opportunity, since the tourists using the web to plan their holiday are always more numerous.

For this study case the communication occurred exclusively via web (web site of the event and social networks). The visibility of the event increased, causing a rise in the number of tourists that attended the event in 2011.

The goal of the event's Facebook page was to let tourists have a touching experience and it was achieved in both editions. Users left comments on the Facebook page both during the event and after it. Between 2009 and 2011, strong increases in arrivals and stays on the territory were registered. Important data for the event, especially because an innovative communication system was chosen to

communicate. Facebook gave huge visibility to the event both in Italy and abroad, if considering the large number of foreign users who clicked “like” on the page.

However, the research has limitations. First, it is not possible to statistically analyze and demonstrate the level of users loyalty. Through the study of the data obtained it is proved only the level of attendance and engagement in terms of number of active users and “likes” on posts. Moreover, it is not possible to statistically determine the existence of a relationship of dependence and interdependence between the increase in arrivals and stays on the territory and the number of people who attended the event actively.

This research aims at describing the strong impact that social networks have on users and how these tools can be valid to promote and to sponsor a territory for tourism purposes.

The purpose is to extend the research to measure and monitor the level of users loyalty and word-of-mouth, to compare the efficiency of traditional communication methods with the new ones (web sites and social networks) and finally, to verify the existence of a relation between communication tools and eventual increase in consumer feedback.

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## MODEL OF CUSTOMER BEHAVIOR ON GAMBLING MARKET – INTERNATIONAL PERSPECTIVE

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### ABSTRACT

Gambling holds prominent position in Western culture and is leisure activity that most adults participate in and enjoy at some level (Dickerson, Allcock, Balszczynski, Nicholls, Williams & Maddern, 1996). However over the last two decades of changes in the economic and political climate have seen rapid growth in gambling industry with legislation allowing for introduction new forms and expansion of existing forms of gambling also in transitional economies. This has result in greater availability of and access to multiply forms of gambling in the community than ever before. Changes in infrastructure on gambling market influence very strongly on gambling behavior of customers. The importance of this issue stems from the fact that may have a significant impact on income and expenditure of households. There is also very important sociological and psychological aspect of gambling behavior, particularly when it takes the form of pathology. The purpose of the paper was to investigate gambling behavior among consumers in different European countries and identify factors determining decision of consumers on gambling market. Very important purpose of paper was also identification profile of consumers making games, and verify hypothesize model of gambling behavior of consumer from European courtiers. To reach purposes presented above survey was conducted with the use of a structured questionnaire in Germany, Poland, Romania, Spain and Ukraine. The results shows that consumer behavior on gambling in European markets are strongly determined by perceived risk associated with particular gambling games. Analysis shows consumer gambling behavior as result of information processing and social interaction. And finally, the strongest influence on gambling behavior have emotional states during profit-and-loss cycle.

**Keywords:** *gambling, customer behavior , European market*

### INTRODUCTION

Consumer behavior on the market of gambling and betting presents an interesting theoretical issue and an important aspect of consumer financial behavior both on the economic and social level. Gambling holds prominent position in Western culture and is leisure activity that most adults

participate in and enjoy at some level (Dickerson, Allcock, Balszczynski, Nicholls, Williams & Maddern, 1996). However over the last two decades of changes in the economic and political climate have seen rapid growth in gambling industry with legislation allowing for introduction new forms and expansion of existing forms of gambling also in transitional economies. This has result in greater availability of and access to multiply forms of gambling in the community than ever before. Changes in infrastructure on gambling market influence very strongly on gambling behavior of customers. The importance of this issue stems from the fact that may have a significant impact on income and expenditure of households. There is also very important sociological and psychological aspect of gambling behavior, particularly when it takes the form of pathology.

The purpose of the paper was to investigate gambling behavior among consumers in selected European countries and identify factors determining decision of consumers on gambling market. Very important purpose of paper was also identification profile of consumers making games, and verify hypothesize model of gambling behavior of consumer from European courtiers. To reach purposes presented above survey was conducted with the use of a structured questionnaire in Germany, Poland, Romania, Spain and Ukraine.

## **CONSUMER FINANCIAL BEHAVIOR AND GAMBLING – THEORETICAL BACKGROUND**

Financial behavior represents one of the most important elements of consumer behavior, since the financial aspect appears in the process of buying, borrowing or receiving goods and services. Due to financial constraints, consumers are forced to make many economic analyzes, and consequently choices connected with saving or consuming. One of the first attempts at producing a more comprehensive presentation of the problem of consumer financial behavior was made by Londqvist (1981), who developed a hierarchical four-level model of financial behavior:

- managing budget,
- making and keeping buffer savings,
- financing purchases,
- investing and accumulating wealth.

In accordance with this model, on the level of budgeting, consumers divide their income (from work, wealth, social benefits or other sources, etc) into different expense groups. In the first place, they cover the so-called non-commodity expenses, and take decisions about loan repayment, etc. The remaining part of the income (so-called acquisition fund) is spent on food, clothing, cosmetics, communication, leisure and other conventional, at a definite economic development of the society, indispensable goods and services. If these expenses do not exceed the current income, one can talk

about the phenomenon of the so-called residual savings, or, in other terms, unintended saving. If, in turn, the current income goes beyond the excess limit, the consumer enters the phase of the so-called unconscious borrowing (Foxall & Goldsmith, 2008).

On the second level, i.e. buffer savings and financial security, consumers consciously put aside part of their income as a security in case of unforeseen events and as their own or their family's future financial provisions. In this respect, traditional consumer behavior consisted in keeping surplus funds at home, making term-deposits, or regular allocating funds on bank savings accounts. Due to current development of the financial services market, on this level consumer behavior comes down to buying various insurance policies. It is noteworthy that making and keeping savings requires financial self-restriction connected with planned allocation of part of consumer income (especially at a low income level), as well as self-discipline (e.g. abstaining from unscheduled spending of savings on current consumption) (Callebaut, 1994).

The third level of consumer behavior pertains to making expenses (achieving consumption goals). Wishing to finance a definite market transaction (acquisition of a durable e.g. a car), consumers may either save or borrow financial means. Part of consumers do not want to get indebted and prefer to save money for some future transaction, which is referred to as goal-saving. There is also a group of consumers who do not like to wait until they have saved some money for product purchase, or else do not want to use money from a deposit, so they apply for a loan or a credit (Katona, 1975). Repayment of a consumer credit for such a transaction may be treated as a form of backward saving.

The last, fourth level mainly relates to behavior demonstrated by consumers with a higher income level and refers to accumulation and allocation of capital through investments, speculations, etc. These activities are intended to gain financial benefits from high interest rate and profits (dividends) exceeding the inflation rate. At this level consumers also decide about accumulation of their assets, and turn to financial professionals and tax consultants for advice on how to maximize their capital profits and avoid paying taxes (Antonides & van Raaij 2003).

All levels of the financial behavior form a hierarchical structure, as each consumer gets involved in the first level i.e. managing cash and budget, and then, depending on his/her income level, moves on to the second, third and fourth level. Consumers who take decisions at a certain level of financial behavior are also engaged in lower levels, e.g. at the saving level they usually keep some buffer savings and manage their budget and cash in order to meet a certain goal. It is noteworthy that financial behavior of higher hierarchical levels calls for greater consumer knowledge about managing financial resources, about a market situation, as well as specificity of financial services. Additionally, all decisions taken in this respect call for bigger involvement on part of the consumer (Nicosia, 2006).

Practically, financial behavior appear in two institutional configurations, i.e. on the market and outside the market (Engel, Blackwell & Mirniard, 2006). The first configuration comprises consumer behavior on the financial services market and other types of financial behavior (e.g. paying taxes, gambling, or foreign currency speculations). Difference between the areas of financial behavior appears both on the subject and object level. The behavior demonstrated by an individual consumer encompasses exclusively decisions connected with services offered by various financial institutions such as banks, insurance companies, investment funds, brokerage houses, etc. (Solomon, Bamossy, Askegaard & Hogg, 2010).

It is worth emphasizing the fact that behavior represented by an individual is not always of consumer character. An individual is a consumer only when he or she uses definite financial services in order to satisfy certain consumer needs e.g. taking on a loan, using credit cards or buying some foreign currency for purchase of goods abroad. On the financial services market an individual loses the status of a consumer when his or her decisions are of gainful character e.g. buying foreign currency for speculative purposes, or of investing character e.g. purchasing shares on the stock market. Such behavior is referred to as productive (Nicosia, 2006).

Other types of financial market behavior include services of other organizations such as casino or lottery, as well as financial relations existing between the consumer and the state e.g. tax filing. The second institutional configuration relates to financial behavior in a household and comprises activities connected with managing financial resources and using definite financial services. Consumer financial behavior on the market (spending behavior) comprises, in turn, a group of activities relating to choices about buying / using services of financial institutions or other organizations. At that point, however, it should be mentioned that it is impossible to make a sharp distinction between consumer behavior on the financial services market and in a household. Both these areas are tightly connected and they affect each other in terms of saving, borrowing, insuring, investing or paying (Phipps & Simmons, 2007).

In developed economies, among various areas of financial behavior on the financial services market, consumer behavior occupies a special place, which explains why it has been chosen as a subject of further analyzes. This type of behavior is revealed in the process of searching, buying, using, assessing and allocating financial services which satisfy consumer needs (Wells & Prensky, 2008). The analysis of consumer behavior on the financial services market consists in considering consumer decisions about using their own resources (time, money, efforts) for buying definite financial services. This necessitates making an analysis of types of financial services used by consumers and consumer motives for using a definite financial service. It is also important to find out where, when and how often these services are used by the consumer (Swiatowy, 2006).

Consumer behavior on the financial services market occurs as a three-stage process consisting of need arousal, purchasing strategy and post-purchase behavior (Smyczek, 2007). In the first place, the consumer becomes aware of financial needs, prioritizes them and assesses possibilities of satisfying these needs. The purchasing strategy is mainly focused on searching for information in order to find possible solutions, on assessment of different financial services capable of satisfying a given need and on forms of payment. The third stage comprises the process of using a purchased service as well as consumer behavior being a consequence of satisfaction or dissatisfaction with a service (Rice, 2007).

Since consumer behavior on the financial services market is concerned with purchasing and using services, a distinction can be drawn between the behavior demonstrated by the consumer and by the buyer. It is not necessary for the consumer to personally use purchased services, whereas the buyer is not always the consumer or the user of purchased services. However, in the case of the financial services market, the service buyer is usually the service user. The inseparability of a service and a service provider proves that financial services are first sold, and later rendered and consumed at the same time (Harrison, 2000). The direct contact between the consumer provider and the consumer constitutes an integral part of the process of provision of financial services.

To sum up, it is worth emphasizing the fact that consumer behavior accounts for a big share of a broadly understood financial behavior, representing one of the most significant activity areas of contemporary people. Consumer behavior on the financial services market, and other types of market and household behavior, are tightly connected, complimentary with each other and mutually conditioned. Altogether they form an integral cycle of financial behavior intended to satisfy consumer needs. It should be borne in mind, however, that financial behavior comprises activities which include managing budget, saving, borrowing, investing, arranging insurance, filing tax declarations and paying taxes, doing extra work, speculating gambling, (e.g. foreign currency) and managing property (Antonides & van Raaij, 2003).

Despite considerable progress in the science on consumer behavior (both on the theory and teaching level as well as on the empirical one), it can be stated that so far research into consumer financial behavior has been limited mainly to analyzes related to consumer use of the market offer of particular financial institutions. In the subject literature, the problem of consumer behavior on the gambling market is raised extremely rarely.

In Polish the word gambling („hazard”) comes from the Arab language and denotes „dice” or „game of dice”. The dictionary of foreign words and phrases refers to gambling as a risky undertaking, risk-exposure, a game for money or other goods mainly determined by sheer luck (Latuska, 2001). Another

dictionary defines the concept of gambling as a risky operation the result of which is exclusively dependent on luck, or as a game of risk or exposure to risk (Doroszewski, 2000).

In the EU legislation, gambling falls within three categories, namely: games of chance, betting and gaming machines (Gambling Law, 2009). According to law, games of chance are luck-related operations where winners win money or certain goods. They include (Gambling Law, 2009):

- keno game (the game in which players win by correct marking off randomly chosen numbers and the payout value is the product of a played-in sum and a multiplier determined for consecutive winning stages),
- lotteries,
- TV bingo,
- cylindrical games (where players mark off numbers, signs or other characters and the prize depend on the predetermined ratio of the paid-in sum to the final prize; the result of the game is determined by means of a cylindrical machine),
- card games such as black jack, poker or baccarat, dice games, bingo games and lotteries: non-cash, promotional or mobile lotteries (phone calls or text messages).

Betting consists in wagering on various contest results such as sports competition with participation of people and animals, and on future events. (Gambling Law, 2009). Machine gaming comprises all types of games played on various mechanical, electro-mechanical or electronic machines, including computers. Players play chance-based games (machine gaming also comprise mechanical, electro-mechanical or electronic machines . They are designed for commercial reasons where players do not have a possibility of winning money or some goods, but the game is strictly of chance character) for money or some definite goods (in machine gaming the possibility of prolonging a game is another form of non-cash prize. Players do not have to pay in for participation in the game and can play a new game even by using a non-cash prize received in the previous game).

Bearing in mind the above, it can be concluded that consumer behavior on the gambling market refers to the courage of an individual revealed in the risk of obtaining something valuable (stake) and in his or her hope of achieving some great value, in other words, of satisfying a certain need – prize (Griffiths, 1995). It should be added that the prize or loss depend on events that are unknown to the consumer at the very moment of decision-taking.

It is noteworthy that, like in the case of consumption needs, the gambling ones are of continuous character and satisfaction of one need at a certain moment of time is followed by another urge to satisfy it again (Brenner & Brenner, 1990). Subject literature distinguishes several essential motives which stimulate the recurrence of gambling need satisfaction. The most common ones include: perceived value of money, time lapse between games, amount of money lost during the last game,



perceived probability of winning, the number of close-to-win situations, personal or non-personal nature of gambling, availability of gambling rooms, advertising or rules of a definite gambling game (Griffiths, 1995). To sum up, consumer behavior on the gambling market presents an interesting and important part of financial behavior, being one of the most crucial activities of the contemporary man.

## **HYPOTHESIS AND CONCEPTUAL MODEL**

The real world setting implies dealing with an abundant complexity of financial markets, but modeling customer behavior itself presents even greater challenge. To address this complexity, the question of gambler decision making will be more narrowed focusing on relevant (but most likely interdependent) sub-questions (Lovric, Kaymak & Spronk, 2008):

1. Profiling gamblers on their preferences and risk attitude,
2. Information processing and learning,
3. Social interaction and peer influence,
4. The role of emotions and intuition.

The crucial concept for gambling, and decision making in general, is the concept of risk. Unfortunately, there are many definitions of risk with its meaning varying across different domains. In standard decision theory, a risky prospect is expressed as a set of events and event-contingent outcomes, with probabilities assigned to each event. Knight (1921) made the distinction between decisions under risk and decisions under uncertainty, with risk being measurable (quantitative) and uncertainty non-measurable (non-quantitative). However, it is possible to conceive decision under risk as a special case of decision under uncertainty, where under risk objective probabilities are used, and under uncertainty subjective probabilities are used. The most influential theories for decisions under risk and uncertainty are known as Expected Utility Theory (Bernoulli, 1954; von Neumann & Morgenstern, 1944), Prospect Theory (Kahneman & Tversky, 1979), Rank-Dependent Utility Theory (Quiggin, 1982, Schmeidler, 1989), and Cumulative Prospect Theory (Tversky & Kahneman, 1992). Traditional economics and finance have been dominated by these probabilistic models of uncertainty. However, other theories for dealing with uncertainty, ambiguity, or vagueness exist: e.g. fuzzy set theory (Zadeh, 1965), Dempster-Shafer theory (Shafer, 1976), and rough set theory (Pawlak, 1991). Loomes (1999) suggests that the current evidence in literature is more in favor of the notion that individuals have only basic and fuzzy preferences, and that each decision problem triggers its own preference elicitation. This is in line with the claim that preferences are constructed (not elicited or revealed) as a response to a judgment or choice task (Bettman et al., 1998).

A decision maker's attitude towards risk can be characterized as risk-aversion, risk-seeking (risk-tolerance, risk-taking, risk-loving), or risk-neutrality; and can be defined in a classical sense as a preference between a risky prospect and its expected value (the method of revealed preference). In these theoretical considerations risk attitude is usually captured through the curvature of utility function, or alternatively, through nonlinear weighting of probabilities. But a strong empirical phenomena that is driving risk aversion to a large extent is known as loss aversion (Kahneman & Tversky, 1979, Markowitz, 1952). "Losses loom larger than gains," and while people are typically risk-averse for gains, they are risk-seeking in the domain of losses (Kahneman & Tversky, 1979). This highlights reference dependence, i.e. the importance of reference point against which outcomes are coded as losses or gains.

Slovic (1998) argues that although knowledge of the dynamics of risk taking is still limited, there is an evidence of little correlation in risk-taking preferences across different domains and situations. Only those tasks highly similar in structure and payoffs have shown any generality. Also, previous learning experiences in specific risk-taking settings seem more important than general personality characteristics. Furthermore, risk attitude can change depending on the outcomes of previous decisions. Thaler and Johnson (1990) found that previous gains increase risk-seeking behavior (*house money effect*), while in the presence of previous losses, those bets which offer a chance to break even seem particularly attractive (*break-even effect*). These are examples of what Thaler refers to as *mental accounting*. It is an important question whether gamblers have risk attitudes related to the gains and losses defined on the individual game level (*narrow framing*), on parts of the games (for example during one session / day), on the overall games, or on their total wealth. Accordingly,

*H1, The gamblers perception of risk affect on creation of gamblers behavior on market.*

Any market participants are exposed to a constant flow of information, ranging from quantitative financial data to financial news in the media, and socially exchanged opinions and recommendations. Processing all this information is a daunting task, so it would not be surprising that during this process people apply many heuristics. According to the representativeness heuristic people may overreact to a series of evidences, and see patterns where they do not exist. However, people can sometimes underreact to news, i.e. in the light of a new evidence they update their beliefs conservatively, and not in a fully Bayesian manner (Lovric, Kaymak & Spronk, 2008).

Processing information from the environment is important as it gives inputs for decision making, it updates beliefs, gives feedback on game strategies, and fosters learning. However, the *confirmation bias* may play an important role in how gamblers acquire and process this information. It suggests that

people have a tendency to search for information that supports their current beliefs and decisions, while neglecting information that confronts those beliefs (Lovric, Kaymak & Spronk, 2008).

Oberlechner and Hocking (2004) study information sources, news, and rumors in the financial market. In this study consumers rated the importance of different information sources, such as wire services, personal contacts, analysts, daily newspapers, television etc. An interesting finding of this study is that the information speed, expected market impact, and anticipated market surprise are rated as more important than the reliability of the source, and the accuracy of information. According,

*H2, The gamblers information processing affect on creation of gamblers behavior on market.*

Financial economists have borrowed more from the psychology of the individual than from social psychology (Hirshleifer, 2001). Financial theorists have examined how information is transmitted by prices, volume, or corporate actions. However, person-to-person and media contagion of ideas and behavior also seems important.

Shiller (1990) has emphasized the importance of conversation in the contagion of popular ideas about financial markets. In a survey of individual consumers, Shiller and Pound (1989) found that almost all of the consumers who use a particular financial services had their attention drawn to it through direct interpersonal communication. The influence of conversation on trading may arise from individuals overconfidence about their ability to distinguish pertinent information from noise or propaganda (Hirshleifer, 2001).

Social psychology provides evidence of various social effects which might be important in the context of gambling as well. *Conformity effect*, or the tendency of people to conform with the judgment and behavior of others, was studied by Asch (1956). Bond and Smith (1989) confirmed the conformity effect, showed its historical change, and emphasized its cultural dependence. Other important effects are *fundamental attribution error* and *false consensus effect* (Hirshleifer, 2001). *Herding behavior* or mimetic contagion has been proposed as the source of endogenous fluctuations (bubbles and crashes) in markets (Topol, 1991).

*H3, The gamblers social interaction affect on creation of gamblers behavior on market.*

Emotions have powerful effects on decisions, and decision outcomes have powerful effects on emotions (Mellers et al., 1998). Emotions can have both a predecision and postdecision effect. Most of the research focused on a unidimensional model in which a predecision emotion can be either positive or negative. However, a more detailed approach is needed given the variety and domain-specificity of

emotions. Positive emotions are shown to increase creativity and information integration, promote variety seeking, but also cause overestimation of the likelihood of favorable events, and underestimation of the likelihood of negative events. Negative emotions promote narrowing of attention and failure to search for alternatives. They promote attribute-vs. alternative-based comparisons. One of the most studied emotions that can follow a decision is the feeling of regret. Gilovich and Medvec (1995) showed that in the short run people experience more regret for actions rather than inaction, while in the long run they experience more regret for their inactions. Anticipated emotions, such as regret and disappointment, have drawn most attention of economist, whereas immediate emotions (experienced at the moment of decision making) have been mainly studied by psychologists (Loewenstein, 2000). Loewenstein (2000) emphasizes that economists should also pay attention to immediate emotions and a range of visceral factors which influence our decisions.

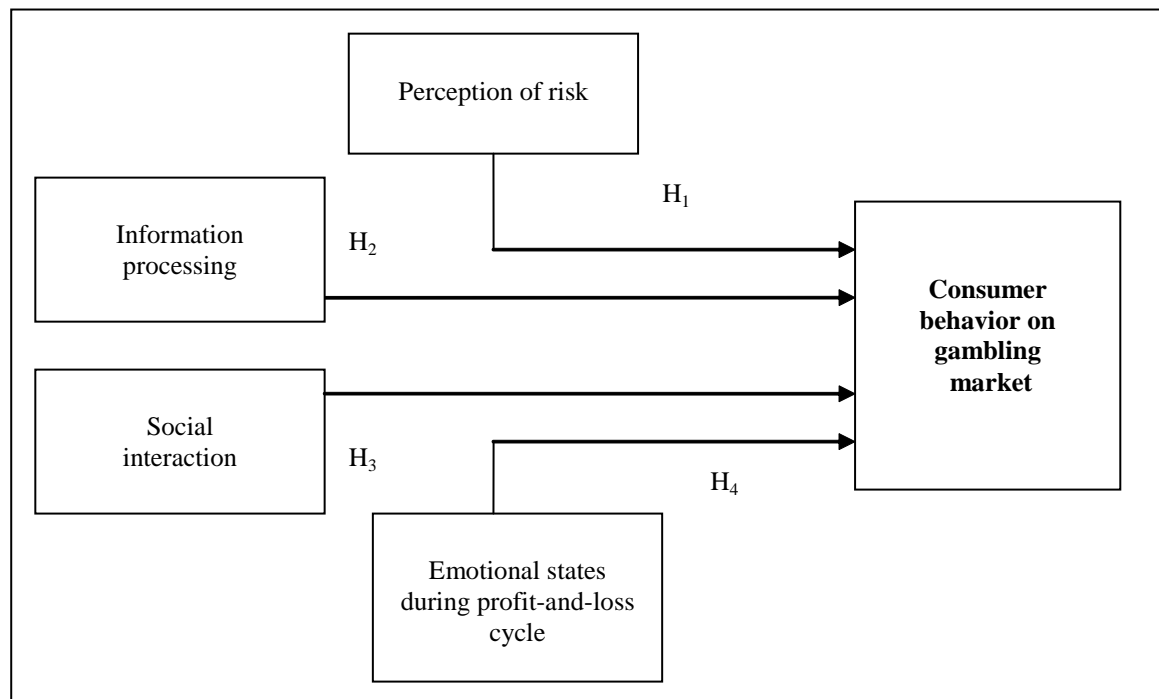
One evidence for the importance of emotions in decision making comes from patients with brain lesions in regions related to emotional processing. Shiv et al. (2005) made an experiment with 20 rounds of investment decisions (choosing whether to invest 1 dollar in a risky prospect with a 50-50 chance of winning 2.5 dollars or nothing), and found that target patients (with brain lesions in emotion-related areas of brain) made more investments than the normal participants and control patients, and thus earned more on average. Normal and control patients seem to have been more affected by the outcomes of previous decision - upon winning or losing they adopted a conservative strategy and less invested in subsequent rounds. However, the inability to learn from emotional signals (Somatic Marker Hypothesis, Damasio et al. (1996)) can also lead to unadvantageous decisions such as excessive gambling. Thus, emotion and cognition both play a crucial role in decision making.

Loewenstein et al. (2001) propose "*risk-as-feelings*" perspective on decisions under risk and uncertainty, which differs from classical cognitive-consequentialist perspective in the sense that feelings or affects play a crucial role in decision making: emotional evaluations of risky choices may differ from cognitive, and when such a divergence occurs, they often drive behavior. Both emotional and cognitive evaluations are influenced by expected outcomes (and expected emotions) and subjective probabilities, however, emotional evaluations are also influenced by a variety of factors, such as vividness of associated imagery, proximity in time, etc.

Goldberg and von Nitzsch (2001) describe a personal experience of a trader (market participant) who goes through various emotional states during profit-and-loss cycles. The feelings of hope and fear, depending on the success or failure on the market, can be transformed to the states of euphoria or panic. During these transitional states there is a selective perception of information - positive information is perceived and often exaggerated, while negative information is ignored. In final states of euphoria or panic, information has almost no role to play (Goldberg and von Nitzsch, 2001). Even

though individuals differ, the authors emphasize that everyone runs the risk of inability to make rational decisions under pressure.

*H4, The gamblers behavior is influenced by their emotional states during profit-and-loss cycle.*



**Figure 1. Conceptual model of consumer behaviour on gambling market**

## RESEARCH METHODS

In order to verify the hypothesized model the direct research was carried out on test groups of consumers from five European countries. The study of gambling behavior on the German, Polish, Romanian, Spanish and Ukrainian markets were conducted by means of a survey questionnaire on a group of 1,000 respondents in each country. Reach were done in 2012. The average questionnaire content equaled 54%, but after verification of the material, 47% questionnaires were approved for further analysis. The choice of the countries was deliberate and based on 2 criteria: 1) legality of gambling operators on market, 2) possibilities of on-line gambling. Ukraine was selected as country with problems of legality of gambling operators on market (since 2009 this activity is illegal). Germany was selected as country with the most liberal gambling law. Spain is country which first legalized gambling online and is one of the biggest gambling market in Europe, Romania is going to legalized, and finally Poland is country, where gambling online is illegal.

**Table 1. Respondents' characteristics**

Characteristics	Germany	Poland	Romania	Spain	Ukraine
<i>Gender</i>					
Female	42.2	49.7	47.9	46.9	41.7
Male	57.8	50.3	52.1	53.1	58.3
<i>Age</i>					
18-24	13.8	19.3	17.2	15.4	14.6
25-34	17.3	22.0	25.5	24.1	20.3
35-44	26.5	19.4	17.7	29.3	26.3
45-54	20.4	19.0	17.9	13.6	15.9
55-64	11.9	12.8	12.0	11.2	13.7
65+	10.1	7.5	9.7	6.4	9.2
<i>Education</i>					
Below high school	57.8	42.4	53.8	56.1	64.6
High school	29.8	41.4	36.5	47.9	27.5
Higher education	12.4	16.2	9.7	11.8	7.9
<i>Employment status</i>					
Full time	63.5	69.4	76.4	67.9	79.8
Part time	14.2	6.7	11.6	16.9	3.9
Own business	12.6	14.8	4.8	8.4	6.1
Unemployed	9.7	9.1	7.2	6.8	10.2
<i>Workplace</i>					
Finance/banking/investment	21.8	27.1	19.3	18.9	14.5
Other	78.2	72.9	80.7	81.1	85.5
<i>Financial situation</i>					
Very bad	2.5	1.7	3.1	2.4	7.2
Bad	32.7	20.9	30.4	29.7	41.3
Average	41.7	52.1	49.3	47.2	37.8
Good	19.2	18.2	14.5	14.5	8.5
Very good	3.9	7.1	2.7	6.2	5.2

All surveys were conducted with the use of a structured questionnaire, translated into national languages. The base questionnaire was designed with three parts. The first part was dedicated to behaviors of consumer on gambling market according to simply model of consumer behavior (Schiffman & Kanuk, 2010). In the second part was the use of Likert's scale which referred to factors influence consumer behavior on gambling market according to hypothesized model. Scale to measure mentioned factors was based on literature review and previous studies (Lovric, Kaymak & Spronk, 2008). The third part describe features of respondents. Once the questionnaire was prepared, the measurements were evaluated by three experts – marketing and statistics professors, in terms of their wording/meaning and consistency.

All the collected data from first part of questionnaire were analyzed separated according to different countries because of identification differences in consumer behavior on gambling market. Data from the second part of questionnaire were analyzed together by means of AMOS 5 program. In the first place, the attempt was made to produce a set of variables responsible for the development of consumers' behavior on gambling market. The scale included 21 variables. The scales were first

refined using Cronbach's alpha and exploratory factor analysis (EFA). The results indicate that five item in scale was deleted due to its low item-total correlation (0.20). Other items of the scales used had satisfactory item-total correlations ( $>0.30$ ) as well as Cronbach's alpha ( $>0.70$ ) (Nunnally & Bernstein, 1994). The EFA extracted four factors at an eigenvalue of 1.56 and 61.07 per cent variance extracted. In addition, all factor loadings were greater than 0.50. In conclusion, the refining step indicates that all items measuring the constructs were satisfactory. Consequently, they were used for the main survey.

In the next stage Cronbach's alpha and CFA were used to assess the measures of constructs based on the data collected from the main survey. The Cronbach's alphas of four constructs were above 0.64 and were respectively. The CFA results of the final measurement model indicate that the model received an acceptable fit to the data: the Chi-square value was significant (Chi-square = 591.329,  $df = 79$ ,  $p < 0.001$ ). A significant Chi-square, however, might be an artifact of sample size, thus other fit indices are more indicative. We present six common fit indicates, guidelines regarding the indices' recommended values, and the indices' values for CFA models in Table 2. The indices indicate good overall fit to the data.

**Table 2. Fit indices, recommended values and the model values for the confirmatory factor analysis**

Fit index	Guidelines	Model's values
1. REMSEA	$< 0.08$	0.071
2. NFI	$> 0.90$	0.919
3. GFI	$> 0.90$	0.947
4. AGFI	$> 0.90$	0.903
5. Bollen's Delta 2	$> 0.90$	0.916
6. RNI	$> 0.90$	0.922

In addition, all factor loadings were significant and substantial ( $>0.50$ ). Therefore, it can be concluded that these measures were satisfactory with the requirement for convergent validity. Also, the correlations between contacts, together with their standard errors, indicated that the discriminates validity was achieved (e.g., Steenkamp et al., 2003).

## MAIN RESULTS AND DISCUSSION

In study of consumer behavior on the gambling market were taken into consideration such demonstrations of gamblers decisions as: the range of played games, needs and reasons for gambling, determinants of gambling, expenditures on gambling, and perceived consequences of gambling-addiction. The gathered information also allowed determination of a consumer-player profile.

### a) knowledge of gambling games and range of played games

The study results have shown that consumers' knowledge of gambling in European countries is very limited, and, to put it more clearly, created mainly by media, as the greatest number of respondents (almost everybody) have indicated such gambling games as machine games (jackpots) and casino games: roulette as well as card games. A relatively high percentage of respondents, spontaneously

referred to sports betting and internet gambling as gambling games. Interestingly enough of respondents pointed at home-played games for money as a form of gambling. However, only very limited of the questioned people identifies gambling with lotto or quiz text messaging.

**Table 3. Spontaneous knowledge of gambling games among European customers**

Gambling games	Percentage				
	Germany	Poland	Romania	Spain	Ukraine
Machine games (jackpots)	95.2	94.2	96.4	94.2	90.1
Roulette	90.4	96.1	92.1	75.3	80.5
Card games	86.5	87.3	87.7	73.8	67.0
Sport betting	80.9	67.5	62.4	69.8	21.4
Internet gambling	61.3	59.0	79.2	88.1	83.6
Home-played games	39.6	28.2	89.7	73.0	91.3
Lotto	35.8	18.7	21.8	60.5	7.6
Quiz text message	22.5	6.9	3.9	6.7	5.1
Others	7.2	3.8	11.6	5.9	17.9

In the case of supported knowledge, almost everybody qualified sports lotteries as gambling, next to machine gaming and casino games. It is extremely surprising that despite recognizing quiz text messaging as a gambling game, majority of respondents in all questioned CEE countries have not considered it strictly gambling.

According to the study, respondents played diverse forms of gambling games, and almost all of them played the lottery. Over 50% of all investigated European countries took part is sports betting and the same number played machine games at least once in their lifetime. Nearly quarter tried internet gambling games and only few of them have visited a casino for gambling.

**Table 4. Using level of gambling games among European customers**

Gambling games	Percentage				
	Germany	Poland	Romania	Spain	Ukraine
Lotto	80.7	88.7	71.8	84.1	77.6
Sport betting	62.4	67.5	62.4	42.6	21.4
Machine games	98.1	94.2	96.4	89.2	90.1
Home-played games	44.1	28.2	89.7	75.2	91.3
Internet gambling	54.6	59.0	79.2	87.9	83.6
Quiz text message	10.6	6.9	3.9	9.1	5.1
Card games	88.9	87.3	87.7	73.8	67.0
Roulette	92.7	96.1	92.1	82.4	80.5
Others	4.1	3.8	11.6	7.3	17.9

#### **b) needs and reasons behind gambling**

Consumer reasons for gambling are diverse country to country, but mainly related to fun and entertainment, escape from a daily routine and day-to-day problems and to leisure in the company of



friends. And only few of respondents regard gambling as a form of earning money (main income source).

**Table 5. Reasons and motives of gambling among European customers**

Gambling motives	Percentage				
	Germany	Poland	Romania	Spain	Ukraine
Fun	98.1	94.2	96.4	89.2	90.1
Entertainment	92.7	96.1	92.1	82.4	80.5
Escape form daily routine	88.9	87.3	87.7	73.8	67.0
Escape for day-to-day problems	72.4	67.5	62.4	20.6	21.4
Leisure	54.6	59.0	79.2	87.9	83.6
Earning money	10.6	6.9	3.9	9.1	5.1
Others	4.1	3.8	11.6	7.3	17.9

In order to confirm respondents' reference to gambling as entertainment, respondents were asked to indicate their favorite free time activities on a 7-point scale. The results have shown that respondents beloved pastime is watching TV or films, listening to music and meeting friends. In the research, gambling was assessed as an activity which provides the lowest level of pleasure.

**Table 6. Favorite free-time activates of European customers**

Activities	Percentage				
	Germany	Poland	Romania	Spain	Ukraine
Watching TV	98.1	94.2	96.4	89.2	90.1
Watching films	92.7	96.1	92.1	82.4	80.5
Listening musing	88.9	87.3	87.7	73.8	67.0
Meeting friends	72.4	67.5	62.4	20.6	21.4
Gambling	54.6	59.0	79.2	87.9	83.6
Others	4.1	3.8	11.6	7.3	17.9

Respondents were also requested to determine which would bring them most pleasure: winning a gambling game, winning a sports competition or a scientific or artistic contest. The results have revealed that the greatest satisfaction would be drawn from winning sports competitions and scientific and artistic contests. Only very narrow group of respondents chose gambling as the greatest pleasure-provider.

**Table 7. Source of pleasure for European customers**

Type of winning	Percentage				
	Germany	Poland	Romania	Spain	Ukraine
Winning gambling	98.1	94.2	96.4	89.2	90.1
Winning sports competition	92.7	96.1	92.1	82.4	80.5
Winning artist or scientific contest	88.9	87.3	87.7	73.8	67.0

### c) determinants of consumer behavior on gambling

The study shows that consumers habits constitute the main determinant of consumer choice of a gambling game. Other factors include distance from the place of residence and security of a transaction.

**Table 8. Determinants of gambling among European customers**

Gambling games	Percentage				
	Germany	Poland	Romania	Spain	Ukraine
Habits	98.1	94.2	96.4	89.2	90.1
Place of residence	92.7	96.1	92.1	82.4	80.5
Security of transaction	88.9	87.3	87.7	73.8	67.0
Level of prize	72.4	67.5	62.4	20.6	21.4
Extra services	54.6	59.0	79.2	87.9	83.6
Professional service	44.1	28.2	89.7	75.2	91.3
Others	4.1	3.8	11.6	7.3	17.9

Over 50% of respondents finances their participation in gambling with current earnings, 28.7% with savings and only 2.5% with money from previous winnings. It seems worrying that over 16% of respondents borrow money to be able to play the games.

With respect to financing games with current earnings, one should highlight the fact respondents approach it with caution spending on gambling no more than 25% of their income. In most cases they use 5% or less of their earnings (50.4%), or between 10 and 25% (27.9%). Only 1.7% of respondents exceed 50% of their income playing the games.

### d) consumer-player profile

The main gamblers on the European gambling market are middle-aged men, with secondary education, running single or 3-member households. The players live in big or medium-size cities and obtain the income level of average.

**Table 9. Gamblers profile in European markets**

Characteristics	Germany	Poland	Romania	Spain	Ukraine
<i>Gender</i>					
Female	42.2	49.7	47.9	46.9	41.7
Male	57.8	50.3	52.1	53.1	58.3
<i>Age</i>					
18-24	13.8	19.3	17.2	15.4	14.6
25-34	17.3	22.0	25.5	24.1	20.3
35-44	26.5	19.4	17.7	29.3	26.3
45-54	20.4	19.0	17.9	13.6	15.9
55-64	11.9	12.8	12.0	11.2	13.7
65+	10.1	7.5	9.7	6.4	9.2
<i>Education</i>					
Below high school	57.8	42.4	53.8	56.1	64.6
High school	29.8	41.4	36.5	47.9	27.5
Higher education	12.4	16.2	9.7	11.8	7.9

<i>Employment status</i>					
Full time	63.5	69.4	76.4	67.9	79.8
Part time	14.2	6.7	11.6	16.9	3.9
Own business	12.6	14.8	4.8	8.4	6.1
Unemployed	9.7	9.1	7.2	6.8	10.2
<i>Workplace</i>					
Finance/banking/investment	21.8	27.1	19.3	18.9	14.5
Other	78.2	72.9	80.7	81.1	85.5
<i>Financial situation</i>					
Very bad	2.5	1.7	3.1	2.4	7.2
Bad	32.7	20.9	30.4	29.7	41.3
Average	41.7	52.1	49.3	47.2	37.8
Good	19.2	18.2	14.5	14.5	8.5
Very good	3.9	7.1	2.7	6.2	5.2

### e) consequences of gambling

As results show, majority respondents do not see any negative consequences of gambling for themselves. Interestingly enough, almost the same number of respondents perceive the threat of gambling for other people and for the whole society. In the case of negative consequences of gambling respondents pointed out harmful phenomena including family problems, indebtedness, loss of friends, works problems, theft, and fighting.

**Table 10. Consequences of gambling for European customers**

Type of consequences	Percentage				
	Germany	Poland	Romania	Spain	Ukraine
Family problems	98.1	94.2	96.4	89.2	90.1
Indebtedness	92.7	96.1	92.1	82.4	80.5
Loss of friends	88.9	87.3	87.7	73.8	67.0
Works problems	72.4	67.5	62.4	20.6	21.4
Theft	54.6	59.0	79.2	87.9	83.6
Fighting	44.1	28.2	89.7	75.2	91.3
Others	4.1	3.8	11.6	7.3	17.9

In majority of cases respondents are satisfied with gambling. Surprisingly, respondents do not trust institutions offering gambling services. According to study results, majority of respondents are determined to play various gambling games in the future. A considerably lower percentage of respondents would recommend gambling to their friends, but with respect to children. Majority of them try to prevent their children from various gambling games.

### f) results in hypothesized model – testing main effects

After examination of measurements used to measure constructs, focuses of study turns to theoretical structure hypothesized. Investigation of hypotheses was pursued, basically, by levels of adjustment of theoretical model, and by significance and magnitude of estimated coefficients of regression (Hair et al., 1998).

**Table 11. Estimated coefficients in consumer gambling behavior model**

Relationship in model	Hypotheses	
Dependent variable: <b>Consumer gambling</b> - perception of risk	$R^2 = 0.71$ <b>0.62 (6.53)</b>	H <sub>1</sub>
Dependent variable: <b>Consumer gambling</b> - information process	$R^2 = 0.67$ <b>0.59 (5.84)</b>	H <sub>2</sub>
Dependent variable: <b>Consumer gambling</b> - social interactions	$R^2 = 0.79$ <b>0.79 (6.05)</b>	H <sub>3</sub>
Dependent variable: <b>Consumer gambling</b> - emotional states	$R^2 = 0.83$ <b>0.70 (6.28)</b>	H <sub>4</sub>

T-values in parenthesis. Based on one-tailed test: t-values > 1.65,  $p < 0.05$ ; e t-values > 2.33,  $p < 0.01$ . Coefficients in bold are statistically significant

Results provide support for all 4 homological relationships specified in our theoretical model. These relations reflect impact of: 1) consumer perception of risk on consumers behavior on gambling market, 2) different information processes on consumers behavior on gambling market, 3) social interactions of consumers on their behaviors on gambling market, and finally 4) consumer emotional states on their gambling behavior.

In addition, table 11 shows the explained variance ( $R^2$ ) for each dependent variable in conceptual model.  $R^2$  of 0.71 indicates that construct: positive perception of risk by consumers, considerably, the variation in consumer gambling behavior. Effects of consumer perception of risk on consumer gambling behavior established in hypothesis H<sub>1</sub>, was confirmed.  $R^2$  of 0.67 and  $R^2$  of 0.79 indicates positive correlation between information processing and social interactions and gambling behavior. H<sub>2</sub> and H<sub>3</sub> was confirmed. Impact of consumer emotional states on gambling behavior of customers established H<sub>4</sub>, was supported by findings ( $R^2 = 0.83$ ).

## CONCLUSIONS

The research shows that gambling games are treated by consumers as a form of relaxation and leisure. Winning is mainly a matter of luck, whereas skills play a marginal role. Consumers try to behave rationally on the gambling market. They finance their gambling operations predominantly with current earnings and in gambling they follow their own habits and take into account transaction security. Gambling is perceived as a gripping activity, and therefore respondents would like to protect

their children from the access to different forms of gambling. Nonetheless, they would recommend the games to their friends.

The results shows that consumer behavior on gambling in Europe are strongly determined by perceived risk associated with particular gambling games. Analysis shows consumer gambling behavior as result of information processing and social interaction. And finally, the strongest influence on gambling behavior have emotional states during profit-and-loss cycle.

From practical point of view, the research shows that managers of casinos and other gambling institutions should focus on educational activities of consumers in Europe, concerning scale of their activities and strategy building consumer trust to those institutions. Consequently, information strategies should be developed and focus on consumer information processes and social interactions. Finally, gambling institutions in Europe should convey to consumers their responsibility for children protection against gambling.

It should be borne in mind that this research has some limitations, which, however, can be turned into an opportunity for future research. Undoubtedly, future research should be more intensely focused on investigating what should constitute viable gambling behavior in the context of well-developed and transitional economies. Similarly, it may be necessary to consider and embark on research into the most effective campaigns for proper gambling activities. Ultimately, it is the research that is likely to inform policymakers on the most sensible strategies to be implemented. Invariably, this calls for further research in different countries from the region as well as for comparative analyzes to be made between well-developed countries and countries in emerging markets. In addition, it would be proper to commence with a more comprehensive study of consumers' perception of how they win, loss and manage money.

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## INWARD EXPORT – A CONSUMER ANALYSIS ON SERVICE SATISFACTION

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### ABSTRACT

The aim of the present study is to provide further research on the inward export phenomenon, giving considerable attention to what drives the foreign consumer satisfaction in the service home country. Such phenomenon is common among tourism companies that internationalize without leaving their home country, meaning that the consumers have to travel to the service home country. This conceptual paper shows that several services may affect the foreign tourist stay, which can have different impacts on their overall satisfaction. Not only the core service, but also other complementary services, as well as, its surroundings, might have an influence on how the consumer perceives their visit and therefore, on their will to return. Thus, this study provides a broader understanding of consumers expectations so service companies can respond to or exceed such expectations, and consequently, leverage their position leading to consumer overall satisfaction.

**Keywords:** *Inward export, consumer satisfaction, service quality, international service strategies, tourism.*

### INTRODUCTION

Globalization and internationalization have been very scrutinized themes over the past decades (Welch and Luostarinen, 1988; Andersen, 1993; Whitelock, 2002; Etemad, 2004; Knight, 2004; Lang, 2006; Negrea, 2012). Following this line, and taking into consideration the growing importance of services in internationalization, many authors have studied several topics on this matter, like international barriers, modes of entry and drivers of international performance (see Lommelen and Matthyssens, 2005; c.f. Bianchi and Drennan, 2012). Such research, although very important, leaves behind one aspect that underlines some service industries like education, tourism or healthcare (Björkman and Kock, 1997; Bianchi, 2010). There are a number of service companies that, due to a location's unique feature or the impossibility of dislocating the service abroad, require that the consumer has to physically travel to the service home country (Björkman and Kock, 1997). This inward movement, named importing customers (McLaughlin and Fitzsimmons, 1996), inward export (Björkman and Kock, 1997) or domestically located service exports (Roberts, 1999), comprises service companies where producing



and consuming are simultaneous activities and occur in the home country of that entity (Bianchi and Drennan, 2012).

At the service level, customer satisfaction might elucidate on service quality. It can also be source to improve market share, profitability and positive word-of-mouth, increase purchase and preserve consumers (Anderson *et al.*, 1994; Oliver, 1997 in Bianchi and Drennan (2012)). And, as Bianchi and Drennan (2012) conclude in their investigation, customer satisfaction is not only a result of functional attributes from the core service, such as service performance but it is also influenced by elements of the peripheral service, like the relationship between customers and service providers.

As mentioned above, tourism can be one service sector that falls within the spectrum of inward exports, as the foreign consumer has to move to the service home country to experience it (Björkman and Kock, 1997). This sector can be an instigator for domestic firms to develop knowledge on foreign consumer behavior and create international promoters, allowing some small companies to overcome internationalization barriers (Poulis and Yamin, 2009). Additionally, it is to remark that the Portuguese tourism sector shows a dynamic growth and has an important contribution on Portugal's economic activity (Sustainability Reports, 2010, 2011). According to the Sustainability Reports of 2010 and 2011 from "*Turismo de Portugal*", the tourism consumption on the Portuguese economical territory represented about 8.8% of its GDP in 2009, and about 9.2% in 2010. The same organization mentions that the balance of trade for tourism was about 5.7 billion Euros in 2012 and grew to 6.1 billion Euros in 2013, and the goal is to have an average growth of 9.5% per year until 2015. This expected dynamic makes the tourism a compelling sector for research and understanding.

In summary, this study will concentrate on the global service strategy of inward exports, focusing on the tourism sector, to explore what drives the satisfaction of the foreign consumer in the service home country. Thus, it seems eloquent to question: what are the determinants and their weight on the tourist overall satisfaction at the service home country?

This conceptual study is then divided in two parts, whereas the first presents a description of the global service strategies and the second part concentrates on the inward export strategy, describing the different services that might affect the foreign consumer satisfaction.

## LITERATURE REVIEW

Throughout literature services are defined as being intangible when comparing to products, but as Shostack (1977) underlines this may not be the main distinguishing characteristic. This is, as the author also concludes, because some services have important tangible elements that will influence the "reality" of the service in the consumers mind. The complexity associated to services, whether it is their intangibility or the degree to which services are embodied in goods, makes them more challenging to

internationalize, and entities should detach from a product marketing approach (Shostack, 1977; Vandermerwe and Chadwick, 1989; Bianchi, 2011). Additionally, Cicic *et al.* (1999) argue that it is the characteristic of inseparability (production and consumption are simultaneous activities) that has the biggest impact when selling services abroad.

Lommelen and Matthyssens (2005, p. 97) define international service as "a service that is offered in foreign markets and/or to foreign customers" and there are several categories for services' internationalization strategies.

### *Global service strategies*

According to McLaughlin and Fitzsimmons (1996) service firms can chose between five strategies to internationalize. A first strategy proposed by the authors, named multicountry expansion, seems pertinent when consumers have to physically travel to the service facility in order to benefit from it. Commonly, this strategy replicates the home country service in several locations but it requires a special attention in terms of the front-office, since it is important to adapt to the local culture.

A second strategy underlines that some service companies choose to internationalize following their corporate clients, which may require the service firm to adapt their service package and employ people that are sensitive to the local business practices (Fischer, 1991; Cooper and Lybrand, 1992, in McLaughlin and Fitzsimmons (1996)). Nevertheless, as McLaughlin and Fitzsimmons (1996) suggest, this strategy might create a tunneling vision because the service firm can ignore potential markets with growing middle classes, leaving competing local companies free to provide for them and if successful, they may become international competitors.

Service offshoring is another global service strategy and it can be defined as the outsourcing of a service in a foreign location (Fitzsimmons and Fitzsimmons, 2011). The offshore of back-office activities is very common because of their informational nature, which makes them prone to be executed anywhere in the world, leaving the company to focus on its core business (McLaughlin and Fitzsimmons, 1996).

A fourth global strategy is "beating the clock" and "describes the competitive advantages gained owing to the fact that one can bypass the constraints of the clock and the constraints of the domestic time zones, including time-based domestic work rules and regulations" (McLaughlin and Fitzsimmons, 1996, p. 54).

Finally, importing customers sustains on the concept that, due to a location's unique attribute or the impossibility of moving the service to another country, consumers will have to travel to the service home country (Björkman and Kock, 1997).

### *Inward export*

Whether it is called importing customers (McLaughlin and Fitzsimmons, 1996), inward exports (Björkman and Kock, 1997) or domestically located service exports (Roberts, 1999), in all of them prevails the idea of foreign clients being "forced" to move to the service home country so they can enjoy the service. For example, tourism, healthcare and education are services that fall within the spectrum of the internationalization strategy in analysis (Björkman and Kock, 1997; Bianchi, 2010; Heung *et al.*, 2010). Bianchi and Drennan (2012) underline that for such service firms, production and consumption are simultaneous (the 'moment of truth') and take place in the service providers home country (see also Kandampully and Promsivapallop, 2006). Thus, it becomes essential for the firm to develop the foreign language skill and cultural sensitivity during customer-employee contact, and "transportation infrastructures and logistics management will be required to accommodate the visiting customers" (McLaughlin and Fitzsimmons, 1996, p. 52). For these service firms, McLaughlin and Fitzsimmons (1996, p. 52) argue that "differentiation will occur through customization and complexity of the service". As some authors conclude, there can be several factors that consumers take into consideration when choosing a destination, whether it is a service like education or tourism (Heung *et al.*, 2010; Bianchi and Drennan, 2012; Peña *et al.*, 2012). For the present study, these factors are divided between: core, peripheral and facilitator services, and surroundings.

### *The core service*

Some service companies possess unique features concerning the environment where the company is located and firm specific resources and/or capabilities that prevent the service to be transferable across borders (Björkman and Kock, 1997; Roberts, 1999; Bianchi, 2010, 2011). Specifically, service's infrastructures (Björkman and Kock, 1997; Heung *et al.*, 2010) and atmosphere (as, for example, the Valamo Monastery in Finland (Björkman and Kock, 1997)) influence service quality and firms reputation, as well as marketing and communication strategies and cultural intelligence (Bianchi, 2010). These firm specific resources are distinctive features and portray the core service (the reason for the company to exist) that stimulates the foreign consumer to travel abroad (Patterson *et al.*, 1998; Kandampully and Promsivapallop, 2006). The core service can be the most important determinant for customers overall satisfaction, as Patterson *et al.* (1998) conclude for foreign students in Australia. In such study they verify that the interviewed students take greatly into consideration the learning experience and their achievements as students. Rahman and Shil (2012) also demonstrate that the core service is very important, since young consumers prefer to visit a natural park in Bangladesh by themselves, dismissing the tour guides offered by the park.

The definition of inward export has underlying a high involvement between service provider and customer at the moment of production and consumption (Bianchi, 2010, 2011; Bianchi and Drennan, 2012). This 'moment of truth' can be important to develop a good relationship between them, especially the first contact, which can be the foundation for a satisfied client (Yung and Chan, 2002). In their study, Styles *et al.* (2005, p. 122) argue for service firms with high face-to-face contact that some performance drivers "(...) were high levels of customer service, interpersonal skills, and a local presence in some form". On the other hand, Roberts (1999) states that, due to the high face-to-face contact when exporting, the service company should have cultural sensitivity, local knowledge, desire to protect intangible assets and confidentiality. As for the consumer, when moving to the service home country, he will be faced with a new and uncertain environment which may lead to conflicts that emerge from cultural differences and communication errors during the delivery process (Bianchi, 2010, 2011). The findings of the same author reveal that cultural differences, besides creating miscommunication, may mislead consumers' expectations and in consequence, lead to dissatisfaction. Thus, it is important for service firms "(...) to have a thorough understanding of individual international market preferences and needs, and adapt properly to market variation to achieve long term performance" (Bianchi, 2011, p. 287). For example, Heung *et al.* (2010) argue that medical facilities should meet consumers expectations, providing a medical care of international standards. To achieve that, as the authors also state, the destination place should have a good communication structure and multilingual employees. Nevertheless, these service companies cannot dismiss the domestic consumers as they can be a relevant portion of their revenues, like Björkman and Kock (1997) note that only 7 to 10 percent of the customers are foreign at the Valamo Monastery in Finland.

### *The peripheral services*

Kandampully and Promsivapallop (2006) discuss in their study that customer needs are becoming more complex and so, service firms should broaden their core service offering by having non-core supporting activities. For example, Bianchi and Drennan (2012) conclude that international students satisfaction (or dissatisfaction) can be a result of services like accommodation or personal services (such as health services) when in the host country, which are neither a part nor can be controlled by the core service, the school. Still, such services can be an opportunity for the service company to gain a competitive advantage (Kandampully and Promsivapallop, 2006). Moreover, Heung *et al.* (2010, p. 237) declare that for medical tourism, even though the core service is the "medical treatment, attractive hospitality and travel options are also essential" which would require an efficient coordination between the healthcare and tourism sector.

In this line, Kandampully and Promsivapallop (2006) define peripheral services as a combination of goods, services and experiences that complement the core service, and can either positively or negatively, influence the consumer's evaluation of the service (Gabbott and Hogg, 1996; Kandampully and Promsivapallop, 2006). On the other hand, Patterson *et al.* (1998) states that the peripheral services are other services related to the consumers stay in the domestic country of the core service (the one that stimulates the consumer to travel) necessary for the consumers survival in the new country. These peripheral services have a great impact on overall customer satisfaction (Gabbott and Hogg, 1996; Anderson *et al.*, 2008; Bianchi and Drennan, 2012) and may influence how consumers view the core service (Reimer and Folkes, 2009; Bianchi and Drennan, 2012). Jin *et al.* (2012) strengthen this idea by concluding that service firms can benefit greatly when they highlight in a service package, the customized peripheral attributes that the consumer can enjoy.

For exemple, Rahman and Shil (2012) studying the satisfaction of young tourists visiting a natural park in Bangladesh, conclude that the food service is important for their satisfaction, particularly if it they were price friendly and portrayed national culture. In a study about rural tourism, Peña *et al.* (2012) verify that the perception of a destination to a rural tourist is influenced by the offer of complementary services, such as cultural services (like monuments, museums, concerts), activities in the nature (like mountain sports, water sports, etc.) and gastronomy offer.

### *Facilitator services*

Service quality and consequently consumer satisfaction, is commonly accessed only after purchasing or during consumption (Parasuraman *et al.*, 1985). Zeithaml *et al.* (1993) discuss four factors that influence consumer expectations: past experience, explicit service promises (such as advertising), implicit service promises (for example, price and tangibles associated to the service) and word-of-mouth. On the other hand, consumer perceptions of the service vary with customers characteristics specifically, demographic (such as age or genre) and situational (like previous experience) characteristics (Anderson *et al.*, 2008). Thus, it is important that service companies choose carefully their communication strategies, as they can be a way of attracting foreign consumers to the domestic market, besides having an influence on their expectations and consequently, on their satisfaction (Zeithaml *et al.*, 1993; Bianchi, 2010, 2011). Communication activities can be performed through travel agents, participation in trade shows, exploit of the internet, direct marketing, international visits by service company staff and establishing relationships and partnerships with relevant social actors (Björkman and Kock, 1997; Bianchi, 2010, 2011).

Another important input to transmit to customers what the service can be is, as mentioned before, word-of-mouth (Zeithaml *et al.*, 1993). This type of communication conveyed by consumer reports,

friends or family (Zeithaml *et al.*, 1993) is the most influencing communication activity to attract foreign customers to the service home country. Bianchi (2010) concludes such in her investigation, demonstrating that over 50 percent of overseas customers were recruited through word-of-mouth.

The inward export strategy requires the foreign consumer to travel to the service home country and so, tourism offices (Meiriño *et al.*, 2013) and transportation infrastructures need to efficiently assist the new customers (McLaughlin and Fitzsimmons, 1996). In their investigation, Bianchi and Drennan (2012, p. 103) demonstrate that some foreign students were satisfied because of the good transportation system in Australia, since "it [is] quick and saves time", as quoted by one student. Contrarily, Meiriño *et al.* (2013), studying Ribeira Sacra in Spain as a tourism destination, notices that consumers were unhappy with the public transportation services because they were scarce.

All these points (communication activities, travel agents, transportation infrastructures, tourism offices) are then proposed as facilitator services, which help the foreign consumers to be aware of the core service and facilitate their arrival at the new country, so they can experience it.

### *Surroundings/Environment*

In their study, Vajcnerová *et al.* (2012) present four dimensions to evaluate the quality of a tourism destination, being one the influence that the environment has on the consumer, to which they call attractions. This dimension includes natural and cultural-social attractions, for example weather and cultural facilities, respectively. Likewise, Bianchi and Drennan (2012) determine that the good weather was a determinant of students satisfaction, whereas Meiriño *et al.* (2013) conclude that safety, a peaceful environment, hospitality and the historical patrimony were influential as well.

Lichrou *et al.* (2008) propose that tourism destinations should be viewed beyond an aggregate of services, attractions, infrastructures, activities and environmental resources. In turn, the intangible and dynamic properties of such place should be considered, as they can have cultural and symbolic meaning to consumers. Nevertheless, when the foreign consumer has to physically travel to a new country and experience a new culture, there is a possibility that differences may arise when he/she meets with other consumers or with other service providers (Bianchi, 2010, 2011). For example, Bianchi and Drennan (2012) note while studying international students satisfaction, that some students felt discriminated or not accepted by local or foreign people as they were experiencing transportation services (see also Patterson *et al.*, 1998).

These previous mentioned singularities characterize a location and create a picture for the customer of the environment they will enjoy. Björkman and Kock (1997) note in their study of the Arctic Safaris Ltd, that is the Northern Finland's nature that enables consumers to experience the uniqueness of what that

service company has to offer. This country-of-origin effect is an important differentiation factor for consumers, like Bianchi (2010) concludes when students choose Australia as a base for their education.

## CONCLUSION

As demonstrated previously, there are different types of services that influence the consumer overall service satisfaction. For example, Peña *et al.* (2012) demonstrated, for rural tourism, that three particular dimensions influence how the consumers perceive a rural destination: the unique rural environment, the characteristics of the services demanded and the complementary services/activities that consumers can experience (such as culture and gastronomy). On the other hand, the model created by Heung *et al.* (2010) shows that there is a combination of services from both the demand and supply side that affect a consumers' choice for a particular destination when it comes to medical tourism.

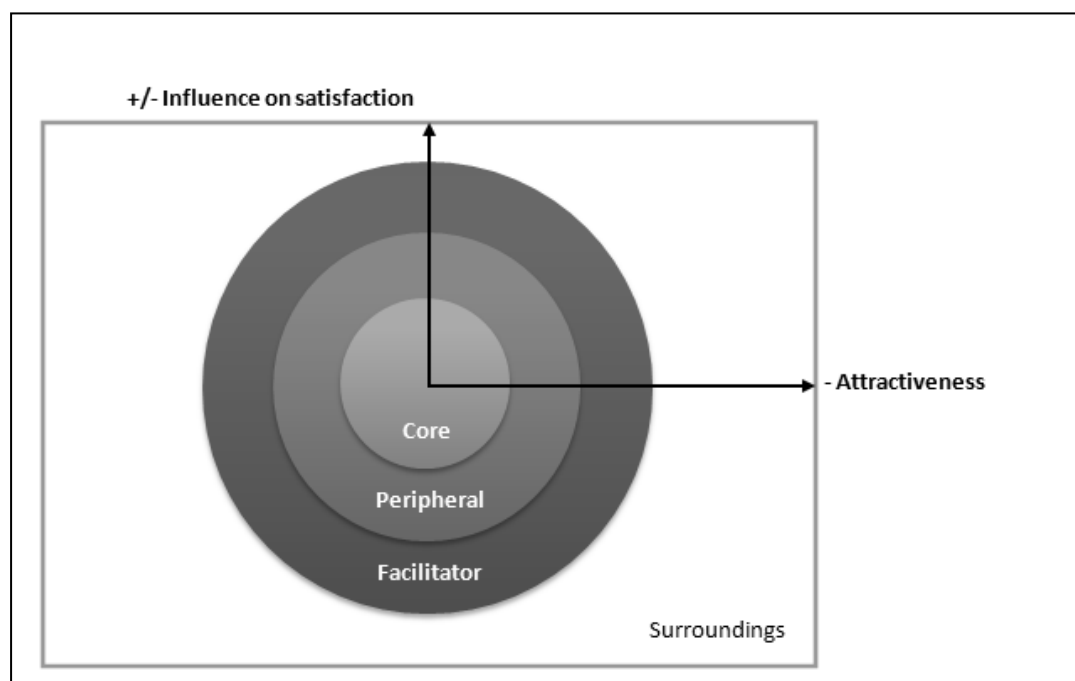
Moreover, there are diverse opinions on how all these services affect consumer perception and on the weight they represent to overall satisfaction. Some authors argue that core and peripheral aspects of a service have an asymmetric influence on consumers evaluation of the overall service (Gabbott and Hogg, 1996; Yung and Chan, 2002; Kandampully and Promsivapallop, 2006; Jin *et al.*, 2012). This is justified by the fact that there are (core) elements of the service that the consumer is expecting to enjoy, so little weight they would have on their satisfaction, being the peripheral services the major contributors to overall satisfaction. For example, Anderson *et al.* (2008), performing a study on air travel industry, demonstrate that both core and peripheral services "are significantly associated with increased overall satisfaction" (p. 374) but a variable related to the core business, the flight environment, is not. In contrast, there is also evidence that the core service has very big impact on customer (dis)satisfaction (Patterson *et al.*, 1998), particularly when consumers think that some core elements are absent (Gabbott and Hogg, 1996; Yung and Chan, 2002), which discourages consumers to enjoy such service.

In summary, and due to the different determinants of consumer overall satisfaction, which varies from the core service, to peripheral services and to service facilitators, Model 1 is proposed (see Figure 1). The core service is what drives the consumers to travel to the service home country (Patterson *et al.*, 1998) and are the service attributes which the consumer is expecting to enjoy (Gabbott and Hogg, 1996). The peripheral services, on the other hand, are other services related to the core service that the foreign customers need for their prolonged stayed in the new country (Patterson *et al.*, 1998). It is also proposed that facilitator services are those necessary to invite and facilitate the arrival and stay of the foreign consumer, meaning that these services are the ones that initiate the process of the inward exports, like communication strategies (Björkman and Kock, 1997; Bianchi, 2010, 2011). Lastly, the surroundings are

another proposed variable that influences the consumers' permanence at the new country, since they can also affect their perceptions of service quality.

As mentioned previously, literature shows some divergences on how these different services affect overall satisfaction, so it is suggested that, as consumers' experience services that are "further" from the core service, its influence on their satisfaction can either augment or diminish. This means, respectively, that consumers may give greater value to complementary services as opposed to the core service, or give more importance on core attributes of the service and less to other attributes, as it follows the line in Figure 1. Additionally, it is expected that services less centered to the core service will have a smaller impact on consumers' choice to travel to the service home country. So in Figure 1, it is proposed that the attractiveness of a service will diminish from the core service to the surroundings, unless the consumers' impulse to travel to the service home country came from a desire to enjoy the weather or the natural/cultural scenery of that country.

Figure 1. *Service determinants of foreign consumer satisfaction*



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## EVALUATION OF THE NATIONAL HIGHER EDUCATION SYSTEM'S COMPETITIVENESS: THEORETICAL MODEL

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### ABSTRACT

*Purpose:* This article aims to evaluate the peculiarities of the national higher education sector and propose a theoretical model for the evaluation of the competitiveness of the national higher education system. The proposed evaluation model for the evaluation of the competitiveness in the national higher education system has been designed by adapting the diamond model suggested by M. E. Porter. M. E. Porter's diamond model has been adapted by taking into account the fact that although higher education is market-driven, higher education outcomes are related to the public interest, thus, the assurance of the functioning of the higher education system is the area of public responsibility. M. E. Porter's diamond model has been modelled taking into consideration the specificity of higher education.

*Design / methodology / approach:* The research is based on literature review.

*Findings and originality / value:* The theoretical novelty of this article is associated with a new concept of competitiveness in the national higher education system and with a new theoretical model applied to evaluate the competitiveness of the national higher education system.

**Keywords:** *Higher education, higher education system competitiveness*

### INTRODUCTION

Researchers involved in the analysis of the development of higher education systems draw attention to the fact that globalisation, the increasingly growing costs for public sector (including higher education), the actualisation of knowledge economy, are changing performance of higher education sector's perception and evaluation, operating conditions, functions and mission of the institutions of higher education, resulting changes in the national higher education systems, alterations in the national higher education policies and new strategic goals set for the sector (*Globalization and Education: Critical ...*, 2000; *Globalization and Educational Restructuring ...* 2003).

Under the influence of the changing social conditions the majority of world's national higher education systems have undergone changes that resulted in altered objectives of the participants of this sector, i.e., to increase the competitiveness of these systems, to ensure a special status of higher

education institutions in the national systems and the world, to increase their capacity to attract sources alternative to state funding (Deem, Mok, and Lucas, 2008 , p. p. 83 - 84). J. L. Demeulemeester notes that the change in the national higher education systems is characterized by certain common features: reductions in state funding, introduction of a new ratio of education funding provided by students and state resources, introduction of new public management, increase in internationalisation and others (Demeulemeester , 2011, p.p. 2 ).

The scholars note that the application of neo-liberal ideology is primarily applicable to the changes in higher education funding (Ferlie, Musselin, and Andresani, 2008; Deem, Hillyard, and Reed, 2007; Schimank, 2005, et al.). B. Jessop, N. Fairclough and R. Wodak argue that the market-based neo-liberalism involves the promotion of entrepreneurship in the higher education sector, the application of new strategic paradigms promoting the attraction of investments in higher education development and, as a result of these developments, the changes in management of the higher education system (Jessop, Fairclough, and Wodak, 2008 , p. p. 30). The analysis of the competitiveness of higher education phenomenon reveals that scientific works do not present concept of higher education competitiveness, and dominating multi-aspect definition of the field shows that the competitiveness of higher education, its research and evaluation suggest new complex (interdisciplinary or even multidisciplinary) themes in the field of higher education research.

The objective of this article is to present a model of the analysis of the competitiveness of the national higher education system. This objective aims at discussing the peculiarities of higher education in defining the concept of competitiveness in higher education system, analysing and introducing M. E. Porter's diamond model adapted to carry out the research of the competitiveness of the national HE system.

## **PECULIARITIES OF HIGHER EDUCATION SYSTEM, FORMING A UNIQUE CONCEPT OF HIGHER EDUCATION COMPETITIVENESS**

Traditionally, higher education in Europe has been part of the state-led social policy, ensured by public funding (*Reforming higher education. ...* , 2004). The conception of higher education as a field of public responsibility has been developing under the influence of a concept of higher education as part of public well-being, based on both the classical university tradition of free education and the interference of the state in arranging and providing higher education.

The emergence of globalisation and the rise of knowledge-based society had a major impact on the systemic and institutional changes in higher education systems (*Globalization and Educational Restructuring. ...* , 2003), especially in growing market tradition in higher education (Shin, Harman, 2009). In summary, the studies of the impact of globalisation on higher education carried out by

various scholars, have identified the following crucial change of directions in higher education triggered by globalisation:

- massification of higher education;
- change in higher education management (privatisation included);
- change in responsibility and accountability for the quality of higher education;
- internationalisation of education;
- ranking of higher education institutions (Shin, Harman, 2009, p. p. 3).

Scholarly insights account for the emergence of pre-conditions for the global competition as well as conditions for its development or a continuously emerging trend of global competition in higher education. S. Marginson notes that an open information environment, the development of networked relationships that strengthen international flows do not indicate the existence of an international education system, the local context is important for the interactions between universities or activities of knowledge-based clusters (Marginson, 2004, p. p. 176). S. Marginson argues that the local context leads to a new corporate autonomy of a number of universities from the illiberal state institutions (Marginson, 2004, p. p. 176). The importance of the national context is attributed to national resources and national needs. To define these intertwined contexts of higher education as well as the impact of their elements on higher education sector, S. Marginson and G. Rhoades have introduced a new term – *glonacal* (*glonacal* = *global* + *local* + *national*) (Marginson, Rhoades, 2002). This approach allows to identify the peculiarities of global competitiveness in higher education: creating of opportunities and conditions for institutions of higher education to compete on a global scale increases their competitive potential on the local and national scale; enhancing of the global competitiveness of higher education institutions can be ensured by national resources, global competitiveness can be affected by the activities of higher education institutions at the national level. The suggestibility of the higher education system to the global, local and national contexts indicates the potential sources for raising competitive advantage initiatives that emphasizes the specificity of competitive conditions provided for the higher education system and indicates the potential peculiarities characteristic to the evaluation of the competitiveness of the higher education system that requires distinctive approaches to measure competitiveness.

Market ideology applied in higher education and being promoted by globalisation is based on the economic neoliberalism doctrine that ascribes the significance to market power, deregulation, seeks reduction of public expenditure on higher education as well as on other social services and the input of new higher education funding sources. Neo-liberalism in higher education is primarily associated with the idea of academic capitalism where any institution or professional attempts under the market conditions or *marketlike* conditions in order to raise funds alternative to public funding from the

budget (Slaughter, Leslie, 1997). The idea of academic capitalism is based not only on commercialisation of scientific knowledge in the market (patenting, licensing or establishing *spin-off enterprises*, etc.) or marketlike conditions (obtaining funding by grants, establishing various partnerships of higher schools and business organisations, raising funds from tuition fees, etc.), but also includes other activities of higher education institutions that are changing the interaction between higher schools and their social environment. Market relations in higher education are characterized not only by the idea of academic capitalism but also by the concepts of new public management and entrepreneurial universities (Deem, 2001).

The researchers, while highlighting the advantages of the input of market relations in higher education, note that the application of the neo-liberal ideology is primarily associated with positive changes in higher education funding (Ferlie, Musselin, Andresani, 2008; Deem, Hillyard, Reed, 2007; Schimank, 2005, et al): the change in the activities of higher education institutions, the development of their entrepreneurship, the promotion of competition among higher education institutions, higher education systems (higher education institutions, being the participants of the higher education system compete to attract academic resources, commercialise scientific knowledge, academic services). Another advantage of market ideology is that the market assigns resources to research on a competitive basis, which leads to the usability of scientific knowledge, research, i.e. specific potential commercial benefits.

However, in addition to the advantages of market relations in higher education, possible negative consequences of the input of market relations are visible: the limitation of access to scientific knowledge due to commercialisation, the restriction on innovation diffusion, potential threats to academic freedom, the underestimation of fundamental research, the training of specialists of narrow specialisation, the advent of specialised research. Subsequently, the shrinkage of higher education as a public good, accompanied by declining public support is identified as a negative impact.

This means that, seeking to meet the public interests of the university, the cost-benefit paradigm should not to deny the distinctive approach to higher education as a public good, but ensure the fulfillment of satisfying the public interests delegated to higher education institutions and include other public expectations traditionally attributed to higher education as the area of public responsibility (e.g. fundamental research should be considered as the public good, to ensure a broad dissemination of the findings of scientific research, the establishment of higher education institutions, the diversity, applicability of higher education results, the availability of higher education, etc.).

The experts of the World Bank note that even though higher education and other public sector institutions compete with each other for the state budget funding, the financing of higher education from these resources remains important for three reasons: the investment in higher education

provides benefits in terms of economic and social development; the market disadvantages largely influence inaccessible loans to part of the students; higher education is important for the development of basic and secondary education (*Constructing Knowledge Societies ...*, 2002, p. p. 76) .

Taking into account these peculiarities of higher education as that of an area of specific activity, while dealing with the concept of higher education competitiveness, it is appropriate to evaluate the aspect of the competitiveness of higher education as a whole of long-term economic and social welfare growth conditions. The involvement of the higher education system in the process of increasing the state (public) welfare requires the input of not only the needs of the market, but also of the social state (society needs) aspect into the concept of the competitiveness in higher education. So, it is assumed that higher education competitiveness is related not only to economic factors as a whole, but also with the development of the context –the environment of the political, social and other capacity of higher education. Therefore, it is argued that neo-liberalistic access based on the change of operating conditions of higher education institutions forms a distinctive (specific) concept of higher education competitiveness.

The examined peculiarities of higher education define the specifics of the concept of higher education (including higher education sector) competitiveness. A.Kemnitz draws attention to the fact that the scientific literature shows little interest in the investigation of competition of the higher education sector (Kemnitz, 2004). Scientific research carried out on the issues of higher education competitiveness focuses on different aspects of competitiveness of the higher education sector – educational service market problems (Adelman, 2000; Marchese, 2000, et al.), the impact of demographic factors on higher education (Altbach et al., 2009 Swailes, 2001, Keller, 2001, et al.), tuition fees (Geiger, 2004, Hughes, 2011, Ehrenberg, 2000), changes in higher education funding (DelRey, Racionero, 2010, Curs, Singell, 2010, Johnstone , 2004 et al.) or changing priorities of the state, international organisations, assigned to the relevant fields of scientific work.

Scholarly attention is low in discussing the concept of higher education competitiveness as there is no detailed evaluation of the competitiveness of the higher education system, sector or institution, or factors forming a competitive edge. Having evaluated the operational peculiarities of the higher education sector, the fact that the evaluation of the state performance as that of the competitive entity, involves a relevant component of public interest satisfaction, it is believed that the construction of the concept of competitiveness of the higher education system should include the know-how of modern definitions of the states' competitiveness.

Therefore, it is appropriate to comprehend the competitiveness of the national higher education system as the capacity of the higher education system to create, maintain and develop the higher education environment in which the higher education system can compete not only nationally, but

also globally as well as increase the welfare level of the society, the public. This concept is based on the establishment and assurance of the operating environment of the higher education system, i.e., providing the conditions for competitive operation of the higher education system. The interaction of the national higher education system and the state competitiveness enables to evaluate the application of the state competitiveness research models in order to explore the competitiveness of the national system of higher education.

## **M. PORTER'S DIAMOND MODEL ADAPTED TO EVALUATE THE COMPETITIVENESS OF THE HIGHER EDUCATION SYSTEM**

*M. Porter's diamond model* is one of the most widely applied instruments for the evaluation of the competitiveness designed primarily to assess the national competitiveness, later adapted to evaluate the competitiveness of economic sectors (Porter, 1990).

This model evaluates the internal and external factors that create the advantages in the context of global market: internal factors such as demand conditions (consumers and their specific needs), industrial sectors, as well as the strategy, structure and competitiveness of the entity (depending on the country's legal conditions, the country's cultural peculiarities), and important external factors are considered to be the state institutions (the government) and opportunities.

While evaluating the feasibility of *M. Porter's diamond model* in examining the competitiveness of the national higher education system it is necessary to take into account the peculiarities of the national higher education system. Given the peculiarities of the outcomes of the performance (mission) of the higher education system, considering competitiveness of the higher education system (higher education sector, higher education institutions) as the ability of the system of higher education (higher education sector, higher education institutions) to create, maintain and develop the higher education environment in which the higher education sector is not only able to compete, but also raise public and state welfare, the analysis of the national higher education system's competitiveness should assess both, the competitive conditions ensuring the capacity of the higher education system and the higher education system's ability to respond to the goals related to satisfying the public interests, set by the society and state, as well as to increase the level of the public and state welfare.

Considering the fact that the higher education system's operational outcomes are significant to both the public and the state it should be noted that the development of conditions facilitating the growth of competitive capacity of the system of higher education, first of all, depends on the state policy and the performance of state institutions. The role of the state institutions is associated with the elimination of information asymmetry shortcomings that are characteristic to the market (or *quasi-market*) of higher education, so the assessment of the competitiveness of the higher education system



(higher education sector) must include the discussion of state activities in the field (the accreditation of higher education institutions, the assessment of the quality of the performance, the external evaluation of all activities, actions directed to satisfy the public interest). Apart from the fact of the higher education sector's ability to generate financial resources as significant in terms of the diversification of income sources, raising funding sources alternative to state budget funds, also important to point out that the investigation of the conditions that ensure competitive edge of national higher education system, the conditions offered to higher education institutions must be evaluated first, as well as the given opportunities to compete for funding alternative to state budgetary financing (both for higher education and research).

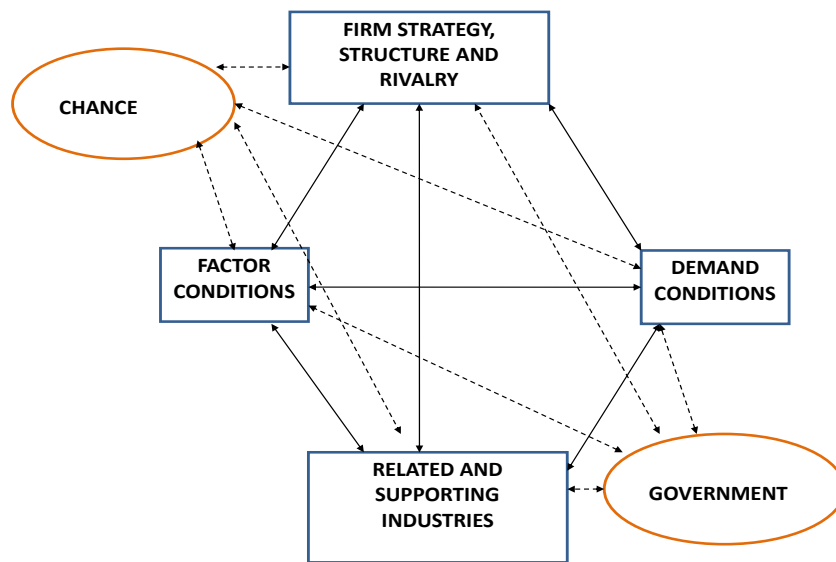
The application of a mixed approach: based on resources and competencies, is considered to be the most appropriate in examining the conditions that boost the competitiveness of the national higher education system.

The application of the approach requires to evaluate appropriate competencies and the quality of the performance relevant to both carrying out the missions of higher education and managing the system of higher education, the higher education system's ability to create and maintain diversity in the system of higher education (in terms of its institutions, courses, etc.). It should be noted that the status and prestige of the system of higher education (higher education institutions) is related to assessment of the quality of competencies of higher education system and performance of appropriate activities. Attention is drawn to the fact that the assessment of the competitiveness of higher education highlights the competition among higher education institutions providing educational services, whereas the competition of institutions carrying out scientific activities (research) is not based on the assessment of institutions, and is only visible in the competition with regard to the financing of activities.

The highlighted aspects in the assessment of the competitiveness of the higher education system (sector) require the adaptation of M. E. Porter's *diamond model* that is based on the belief that it will be possible to apply it in researching both the entire system and the higher education as an economic sector, however, is considered that in order to assess the competitiveness, the presence of the market (or *quasi-market*) is the condition necessary in both cases.

The adapted M. E. Porter's *diamond model* (Figure 1) shows that the development of the national higher education system (sector) is considered to be an integral part of a complex network that includes a variety of public life sectors of the national state that play an equally important role in increasing the state's economic competitiveness and implementing other significant efforts to create welfare state.

Figure 1. M. E. Porter's diamond model adapted to examine the competitiveness of the national higher education system (sector) (developed by the authors by M.E. Porter's *diamond model*)



In this model one of the external factors, i.e., *the government institutions (the government)* are seen as a partner which role in the system is essential: the national system of higher education depends on the decisions made by the government institutions. The impact made by the governmental institutions is associated with other sectoral policies influencing the development of the higher education system. Another external factor - *the opportunities* – is conceived in the model in their traditional meaning, as unexpected events affecting the change of a competitive ability or a competitive situation.

The internal factors of the national higher education system (sector) are considered to be *the internal factors* that play a decisive role in operational activities of the higher education system (sector):

- *Factors of production* of the higher education system (sector) that are perceived as the resources and competencies (*the input*) necessary to carry out the higher education system's (sector's) functions (defined by distinguishing the traditional university missions, i.e., teaching and research). Resources and competencies can be identified as the resources and competencies of the teaching and research quality or the resources and competencies of the status of the national higher education system. These resources comprise both the country's basic factors (geographic location, demographics, etc.) and general factors (developed general economic infrastructure as well as the infrastructure of higher education system, intellectual capital, et al.) and specialisation factors (e.g., skilled human resources, crucial for their specific skills, advanced research, study methods and techniques, innovation, etc.), important evaluating aspects of the resources are those of resources development, renewal as well as the speed of use and efficiency. A distinctive resource of the higher education

system is those seeking for higher education, their “quality” directly related to the operational quality of the higher education system and the evaluation of the outcomes received from this system. Therefore, the “factors of production” include the higher education system’s international cooperation, participation in research networks, arrangement of international education, attraction of foreign students for study, attraction of foreign scientists, professors to participate in the study process of the national higher education institutions.

- This model presents *the conditions for the demand* of the outcomes of the higher education system’s (sector’s) performance in terms of the applicability (marketability) of the learning (study) outcomes and research findings of the higher education system; this internal factor can be defined as the output of the third university mission: the applicability of the outcomes of the higher education systems is associated not only with meeting the market needs, but with satisfying the public interest, so the evaluation of the outcomes of the higher education system’s performance should take into account the fact that only part of these outcomes can be evaluated by economic categories or quantitative indicators.

- Two other internal factors: 1) the higher education system’s (sector’s) management, funding, structure and 2) the higher education system’s (sector’s) accountability, accreditation, assessment are closely inter-related as they indicate the significance of the role of the state in the system of higher education and describe the importance of this role.

The assurance of the efficiency of the national higher education system is associated with the management, structure and financing of the higher education system (sector), (similar coverage limits are observed in the factor derived by Michael E. Porter’s *diamond model*): the conditions governing the higher education system’s (sector’s) operating conditions as well as conditions for higher education institutions in terms of their establishment, management, performance and financing from the state budget funds, indicates the volume and characteristics of the competition taking place between the participants operating within the system (sector) of higher education.

Other internal factor that is considered to be accountable for satisfying the public interest of the national higher education system, in accordance to Michael E. Porter’s *diamond model* is shown as a factor comprising the serving and related industrial sectors. The relevance of the accountability of the higher education system (sector) is associated with the accountability of the higher education system (sector) as that of the entity operating in the sphere of satisfying public interests. The accreditation and evaluation are related to the duty of the state to ensure the rights of higher education consumers. All together, this internal factor can be described as that of public agent institution’s (Cave, Kogan, 1990, p.p. 183).

Adapted *Diamond model* by Michael E. Porter to examine the competitiveness of the national higher education system (sector) is intended to explore the environment in which higher education systems (sectors) not only compete but also seek to improve the welfare level of the society, the public.

## DISCUSSION AND CONCLUSIONS

The analysis of the scientific approach to factors determining competitiveness reveals that of a variety of concepts of competitiveness correlates with diverse theoretical sources available one valuation of competitiveness. The internal and external economic factors, economic characteristics are considered to be most significant.

Undoubtedly, the analysis of the competitiveness of the higher education sector like that of any other sector of the economy, involves such significant factors as the general macro-economic factors revealing the context of the higher education system, the analysis of which is relevant in forecasting the performance of the higher education sector. When applying the approaches that examine the competitiveness of the economic sector proposed by the scientists to investigate the competitiveness of the higher education system should evaluate the peculiarity of higher education, i.e., meeting the public objectives and public interests, as have been already discussed. It is believed that the traditional economic sector approach related to the pursuit of economic benefits, applied for the competitive assessment of the higher education sector is hampered by the features of the higher education sector.

The application of the method (with appropriate exceptions) to measure the advantages of systems' performance indicators are possible only in evaluating the national competitiveness of the entities of the higher education sector (higher education institutions). Globally, the method applied to measure the advantages of the performance indicators in the higher education sector is hindered by the peculiarities of the national higher education systems, differences in higher education sectors of the nations. It is believed that the assessment of the competitiveness in the higher education sector should apply the approach that evaluates the competitive advantage of the existing system with its legal, political, economic, social and other factors. The appropriateness of this approach is based on the development of higher education environment that encourages, enables and ensures a competitive higher education system that will take an active part in increasing the standard of public (society) welfare and satisfying the public interests.

The article proposes a model for examining the higher education system (including higher education institutions) that assigns significance to the assessment opportunities of higher education as that of a system: the assessment of the performance of higher education institutions and factors that determine their performance (human, financial, material and other resources; management, leadership, etc.), the ability of higher education institutions to monitor the environment (performance of other higher

education institutions, the system of higher education, the performance of other public sector institutions; interpretation of policy/decisions made by the state institutions) and, depending on the changes in the environment to introduce internal changes (the ability to compete on services, human resources, etc.).

The analysis of the components of the competitive model adapted to the higher education system highlights the component of human resources (researchers, higher education administrators, lecturers, students, etc.): the overall competitiveness evaluation system is based on the human competencies, ensuring the performance of higher education institutions, its assessment, potential demand or final outcomes. One more aspect is worth mentioning - the assurance of public welfare: the competitiveness of the higher education system does not determine profit of any particular organisation, but targets at developing knowledge as a basis for the creation of new knowledge, development of exclusive competencies, i.e., the sustainability of the system is ensured on the basis of the circulating knowledge within the system, resulting in the creation of added value to society and the state.

The issues of competitiveness in the analysis of the higher education system (especially –of the institutions) are associated with both global and local context, emphasis is laid on the benefit gained from the development of competitive environment resulting in changes introduced not only in individual sectors of the economy, but also in the state. The application of this scientific approach to the assessment of the competitiveness in the higher education system signifies the relevance of evaluating both the local and global contexts. The higher education sector's competitiveness is unique due to the exceptional role of the state (government): state's (government's) role may be crucial in determining the structure, operating principles of the overall higher education system. The analysis of scientific model targeted at the evaluation of the applicability of higher education research activities, for the competitiveness evaluation revealed that the financial and international cooperation aspects are observed as the most significant aspects in assessing competitiveness in this area of higher education. These important aspects are also evaluated by the proposed adaptation of M. E. Porter's *diamond model*.

A high-quality higher education system which involves active participation of the public at large is a mandatory requirement to ensure the state's development and international competitiveness.

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## UNDERSTANDING WOMEN ENTREPRENEURS WORKING IN A CONFLICT REGION

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### ABSTRACT

**Purpose:** The main purpose of this research is to get a thorough and deep understanding of women entrepreneurship working in an Arab and conflict country such as Palestine.

**Methodology:** The study used the quantitative method. The researcher distributed 100 questionnaires on a group of women who are categorized as being entrepreneurs and who own and run their businesses. The judgmental sampling technique used to select these women, based on prior knowledge of the researcher and use of different networks.

**Findings:** The results of the research paper show that Palestinian women have positive perception towards entrepreneurship. Women start their businesses driven by opportunity rather than necessity. The main characteristics of women entrepreneurs' enterprises are more likely to be in consumer oriented businesses, and small ventures hiring between 3-10 jobs. Culture, and access to finance are the main challenges of women entrepreneurs.

**Practical implications:** Understanding women entrepreneurs will assist decision makers in Palestine to issue policies to eliminate the barriers these enterprises are facing. Therefore, number of entrepreneurs will increase and economic situation will improve.

**Originality:** Due to the lack of literature discussing women entrepreneurship in Middle Eastern context, the research discusses women entrepreneurs based on the particularities of conflict regions such as Palestine.

**Keywords:** *Entrepreneurship, Women, Palestine*

### INTRODUCTION

While a lot of studies identifying women entrepreneurship success factors have been carried out in advanced countries, economic research on entrepreneurship in developing economies is less developed and only a few studies have used a rigorous scientific approach. The presence of women around the world driving small and entrepreneurial organizations has had a tremendous impact on employment and on business environments worldwide (Minniti & Arenius, 2003). However, it is still the gap in the research and dissemination of information about female entrepreneurship. Nearly one-



third of all the businesses in the formal economy are women-owned, and women entrepreneurs are expected to be playing an even larger role in informal sectors (Bowen & De Clercq, 2008).

In recent years, there has been a considerable and growing interest in entrepreneurs and entrepreneurship (Davidsson, 2006) at both national and international levels because it symbolizes innovation and a dynamic economy (Gnyawali & Fogel, 1994). Nevertheless, the topic of female entrepreneurship has been relatively neglected both in society and the social sciences, despite the fact that generations of women from across the world have contributed to their environment, demonstrating encouraging signs of entrepreneurial spirit (Global Entrepreneurship Monitor, 2004).

In Palestine, women's entrepreneurship is increasingly recognized as an important factor for economic growth and development. However, The number of women entrepreneurs in Palestine are relatively low, due to a number of factors. Palestinian women entrepreneurs face obstacles, despite deliberate attempts by the Palestinian Authority to encourage female entrepreneurship.

## OBJECTIVES

Women's entrepreneurship, particularly in Palestine, deserves attention, in order to access an underutilized resource and increase economic growth, entrepreneurship can offer new opportunities for women and hence generate income and create wealth for themselves and their families. Thus the main objective of this research is to get a thorough and deep understanding of female entrepreneurs in Palestine.

## METHODOLOGY

In order to understand women entrepreneurship in Palestine, the researcher used different sources and methods for data collection:

Secondary data. Where the researcher relied on surveying the literature relevant to the topic, including the statistical tables, publications issued by governmental and non-governmental organization, research papers, articles and editorials.

Primary data. The researcher distributed 100 questionnaires on a group of women who are categorized as being entrepreneurs and who own and run their businesses. The judgmental sampling technique used to select these women, based on prior knowledge of the researcher and use of different networks.

The aim of this questionnaire was to get a thorough understanding of the factors affecting women. The main points that were tackled in the questionnaire are: (a) influencing factors in the decision to launch a venture; and (b) problems encountered by female business owners.

## LITERATURE REVIEW

Palestine consists of two separated parts: West Bank and Gaza Strip. In the fourth quarter of 2013, the unemployment rate in Gaza Strip was 31.0% compared with 20.3% in the West Bank, and the unemployment rate for males in Palestine was 21.2% compared with 35.3% for females. The highest unemployment rate in the fourth quarter 2013 was 41.1% among youth aged 20-24 years. For years of schooling, the unemployment rate among females with 13 years of schooling or more was 46.7% (PCBS, 2014).

Although Islam declared woman capable of exercising all her rights with no exception and to pursue her social and economic activities, yet, women in Palestine, like women in many Middle Eastern countries, struggled against inequality and restrictive practices in economic participation and family roles. Many of these unfair practices and limitations are said to originate from local cultural traditions (Haber & Reichel, 2007), and creating obstacles towards rights and liberties reflected in laws dealing with criminal justices, economy, education and health care.

This is due to many factors. Some of which are: the slow growth in the region influences economies towards low demand for female labor. In addition, the traditional view that men are the breadwinners further obstructs the employment of women and contributes to an increase in women's unemployment relative to men; the uncertain security situation and internal political tensions (Freedomhouse, 2010) imposing constraints on women and limiting their access to employment opportunities, freedom of movement; and the Arab culture that defines the roles of men and women, men are expected to support their families and women to take care of house and family and hence culture promoted that the right place for the woman is her house.

In Palestine, there is no law that prohibits women's work or ownership of a business exists. However the business environment is still highly affected by gender issues. Women entrepreneurs have their fair share of challenges and constraints that hinder their economic participation and thus make their contribution rates lower than men. Nonetheless, the situation of women in Palestine has seen lots of changes, all aiming at improving the overall status of women. More women are turning into entrepreneurship and hence contributing to the development and economic growth of their country.

In Palestine, as all Arab women entrepreneurs, are faced with external barriers such as lack of financing, exclusion from male-dominated informal networks and the social attitude that business ownership is a male activity. Such barriers are mainly informal barriers based on cultural norms, values and customs (Mohsen, 2007).

## DATA ANALYSIS

Women aged 25-35 are the most entrepreneurially active. It is noticeable that the involvement in entrepreneurial activities decreases with the increase in age, where women aged 55-64 are the least active. As well, it is noticed that entrepreneurial activity increases with education, till it reaches its highest rate among secondary certificate holders (40%), the highest second rate is for completed university degree holders (18%) and then college/technical category (12%). Almost (40%) of the respondents started their own businesses without having any previous experiences while (25%) of the respondents were working in full time jobs and (35%) were engaging in part time jobs. In Palestine women who are living in rural regions (almost 60%) are more entrepreneurially active and (80%) of them are married.

For many individuals, the entrepreneurial process starts with a personal assessment dealing with attitudes and perceptions towards entrepreneurship. In Palestine, women (80% of the respondents) have a positive attitude towards entrepreneurship. When women were asked whether people perceive starting a new a business a desirable career choice, the majority of women were very positive about it. Starting a business requires some basic skills such as planning, technical skills, marketing and monetary skills. When women were asked if they think they have the required skills to start a business, (60%) of the respondents showed that they are still struggling to get their basic needs. When women were asked whether fear of failure would prevent them from starting their own businesses, the answers showed moderate rate (50% of the respondents).

Women were asked if they started their businesses due to “necessity entrepreneurship,” which has to become an entrepreneur because you have no better option, from “opportunity entrepreneurship,” which is an active choice to start a new enterprise based on the perception that an unexploited or underexploited business opportunity exists. Women in Palestine are driven by both motives and with the same intensity, and this is due to unstable political situation leading to worsening economic situation, creating need for capturing any opportunity in the market to start a business and, at the same time, to alleviate poverty and support family on one side and as a substitute for employment.

Almost (80%) of the respondents did not create jobs while (20%) created (1-5) jobs. It is predictable because, the majority of the respondents are working in consumer oriented firms and in business services with almost no activities outside Palestine.

Women in Palestine are looking for better standards of living. They realized the particular nature of their societies and endeavored to achieve for themselves what others can't do it for them. When women were asked about what made them launch their ventures, the answers is to alleviate poverty especially with the unstable political situation which contributes to deteriorating not only women's

status in the community but the stability of families in specific and society in general. Table (1) presents the influencing factors in the decision to become entrepreneurs.

**Table (1). Influencing Factors in the Decision to be Become Entrepreneur**

No.	Factor	Percentage (%)
1.	Income generation	60
2.	Dissatisfaction with current job	55
3.	Use the time in something useful and be productive	45
4.	Self-actualization	40
5.	Financially and economically independence realization	25
6.	Contribution to the Economic progress of the country	15
7.	Attainment of status in the society	10
8.	Flexibility in time-allocation between family and house	10

Although the percentage of women-owned enterprises is in increase, yet women are still facing many constraints and difficulties that may hinder the growth and development of their businesses. Women were asked to specify the problems they encounter in their attempt to manage and run their ventures. Table (2) presents the main challenges that are facing women to start their own businesses.

**Table (2). Challenges facing Women Entrepreneur**

No.	Challenge	Percentage (%)
1.	Culture	84
2.	Lack of support services	82
3.	Access to finance	55
4.	Registration process	52
5.	Laws and regulation	50
6.	Political instability	32
7.	Poor infrastructure	18
8.	Lack of technology	10

Women are faced with cultural limitations that restrict their image to a typical housewife. There was almost a consensus among women on the role played by the prevailing culture on holding them back not only in terms of owning and running the business but when it comes to their rights in movement, joining workforce, political participation and freedom of choice. They believed that norms, traditions and attitudes of the conservative society pose a burden on them. They feel their societies still perceive them as housewives no matter how educated they are or how successful in their businesses they are.

The traditional role puts another limiting factor on women entrepreneurs which is the work - home role conflict. The combination of two jobs, one at work and one at home, is difficult for women in Palestine where poverty and lack of infrastructure can make the most basic tasks harder and time-consuming for them.

Lack of training, information and support services also perform against the growth of women's entrepreneurship. Women stated that they don't possess the required knowledge or skills of a successful businesswoman though they believe that they cannot grow without the right tools and skills and at the same time, they find it hard to acquire these skills, due to its cost or scope.

Access to finance poses itself as a hindering factor in addition to the complicated and bureaucratic business registration process. Women feel it is more difficult for them to access finance and they sensed gender-discrimination especially when applying for loans from banks, who, according to women, require male guarantor and to provide more collaterals. Also, when they seek funding from their families or friends, they feel they are not sometimes taken seriously. However, on a positive side, they expressed "somehow" their satisfaction with micro-credits organizations, due to their "softer" stipulations compared to banks.

Though there is no law that forbids women's ownership of business of any type, however women believed it is the applications of these laws that slow down their entrepreneurial endeavors. Women expressed their dissatisfaction with the mechanisms with which laws and regulations are applied.

Another factor that may hold up women's venture's growth is the complicated and cumbersome business environment. According to the Palestinian women, procedures are complex, length and costly, i.e. obtaining licenses and permits. Paying taxes and bankruptcy and exit procedures, all are working against them and hence may drive them towards the informal sector.

Other hindering factors are the political instability and war threats, lack of skilled and dedicated labor, the limited market expansion opportunities, poor infrastructure, and lack of access to technology and innovation.

## **FINDINGS AND RECOMMENDATIONS**

### **FINDINGS**

1. The demographics of the early stage women entrepreneurs can be described as, educated with post-secondary certificates and higher, their age fall between 25-44, married, live in the urban areas.
2. Women have positive perception towards entrepreneurship.
3. Fear of failure is moderate among women.

4. Women start their businesses driven by opportunity and necessity.
5. The main characteristics of women entrepreneurs' enterprises are 1) more likely to be in consumer oriented businesses, 2) small ventures hiring between 1-5 jobs.
6. Women entrepreneurs are claiming culture, access to finance, and business environment as the main challenges to start their businesses.

## RECOMMENDATIONS

The main recommendations are the following:

1. The society should change its norms and attitudes towards women entrepreneurs
2. Banks and microfinance credit institutions should pay more attention to women entrepreneurs
3. The Ministry of National Economy should restructure the procedures to support women entrepreneurs
4. Further research should focus on informal women entrepreneurs.

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## THE PATH OF SUSTAINABILITY STARTS FROM BENCHMARK DESTINATIONS

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### ABSTRACT

Literature largely accepts that the future competitiveness of destinations will depend on their ability to take advantage of their economic, natural and cultural resources in a sustainable way. For these reasons, managers often seek to establish strategies and operational procedures leading the achievement of a sustainable competitive advantage for tourist destinations. Even though the tourism sector is not the typical field where the benchmarking methods are widely used, such approaches could be successfully if they will be applied to evaluate destination sustainability and to manage the performances of tourist destinations. This paper aims at providing a descriptive and prescriptive framework of features that a destination pursuing the path of sustainability should develop. We proceed with a systematic analysis of related literature and analyzing 82 awarded European tourist destinations for sustainability in the last 5 years. Our goal is the creation of a set of best practices for tourist destinations, thus providing also an important contribution to the literature.

**Keywords:** *Tourist Destination, Benchmark, Sustainable Destination, Tourist Strategies, Ecolabel.*

### INTRODUCTION

Despite the difficult economic scenario characterized the last 7 years, especially for advanced economies,, the tourism sector confirms its positive trend as one of the fastest growing sectors in the twenty-first century, generating the 9% of world GDP . (Wto, 2014). In 2013 it has experienced, a year of further strengthening of international tourism (1.087 billion), an increase of 5% compared to the previous year. Europe has attracted the largest number of tourists (563.4 million, +5,4% than 2012), becoming the most visited region in the world with 52% of all international arrivals, a growth rate of 5% in Europe is remarkable including many comparatively mature destinations. Tourism receipts grew by 4% in real terms, accounting for 42% of receipts worldwide (WTO, 2014).

For the reasons we had explained, tourism continues to be an important driver of development, prosperity and well-being (Weaver, 2006; Scheyvens and Momsen, 2008): it enhances economic growth and encourages local development by increasing employment and national income (Szivaz *et al.*, 2003; Torres and Momsen, 2004; Na Sakalnakorn and Naipinit, 2011).

But a competitive challenge among several destinations is shaking the tourist sector. Each tourist destination, who want to win the challenge and to maintain its competitive advantage, has to plan some strategic actions to be taken. This strategic planning must ensure a balance between the quality and quantity of a supply, and balance it with a corresponding level of demand respecting socio-economic development, environmental factors and sustainability.

For these reasons, managers often try to establish strategies and operational procedures leading the achievement of sustainable competitive advantage of tourist destinations, including benchmarking techniques (Kozak and Rimmington 1999). the main goal of regional governments and destination management institutions is to succeed in this competitive struggle by increasing the competitiveness of their destination. The quality of strategic planning and final strategies become a key factor of competitiveness.

The combination of competitiveness-sustainability is particularly emphasized in the context of tourist destinations and it assumed, therefore, an important role in the international literature of recent decades (Franch *et al.*, 2010; Hong 2009; Enright and Newton, 2005; Ritchie and Crouch 2003; Hassan 2000).

The aim of this study is therefore to identify the features a tourist destination has to possess or develop in order to follow the path of sustainability. Benchmarking techniques allow the detection of these characteristics and, even though they are not widely used in the tourism sector, such approaches could be successfully applied.(Luštický and Kincl, 2012).

To achieve our aim we will apply a qualitative analysis based on the literature review and on the study of factors influencing the economic, social and environmental sustainability of a tourist destination.

## **THEORETICAL BACKGROUND**

According to Godfrey and Clarke (2002), sustainability becomes a synonymous of competitiveness in a long term. So, providing tourism destination with sustainability allows its development and enhancement in long-term.

To control the effects and consequences of tourism decisions, managers and territorial Actors need to be informed. They may use several indicators, as quantitative measures and qualitative reports, that serve as managerial tools in the process of tourism development. For example, through these information and data, they can (Jurdana, 2011):

- o identify easily some important and urgent problems in order to undertake appropriate measures;



- o identify influences and act before they will be seriously damaged support sustainable development, minding limits and opportunities;
- o help managers for a better evaluation and responsible decision making.

Tourism industry not only needs economic indicators but also environmental and social change indicators: they not simply measures current conditions but also serve as “early warning” devices to alert managers of imminent problems (Jurdana, 2011).

Tourism theory recognised the basic importance of environmental quality to ensure the future existence of most kinds of tourist destinations. Tourism managers have been willing to incorporate environmental measures into current management strategies and methods because they can generate lower costs (first aspect) and/or higher revenues and profits (second aspect).

The first aspect usually refers to energy, water and other resource saving programs and thus, in many cases, it results in cost reductions; it is also economically attractive for environmental managers and easily supported by business and political forces located at the destination. The second aspect requires higher environmental awareness, more information and co-ordination, public management and substantial (public) financial resources; it is much more exacting and expensive to manage. It also requires a long-term view; it brings present costs and future benefits (Mihalič, 2000).

According to literature, the sustainability of a tourist destination must be measured, identifying some economic, environmental and social indicators (Butler 1991; Pigram 1990; Carbone, 2005; Weaver, 2006; Schevenes and Momsen, 2008; Jurdana and Frleta, 2011; Albu 2012).

Guidelines of sustainable prizes and ecolabels contain several of these sustainability and competitiveness indicators.

Normally, the main function of ecolabels or sustainability prizes in tourism is to attract tourists, they are a factor of consumer choice, but accreditation may also be used as a criterion by regulatory agencies to grant permits; promotion agencies for their inclusion in marketing campaigns; and insurance underwriters to issue policies and set premiums. (Buckley, 2002).

As a sustainable development tool, it has some advantages, such as showcasing good practice and encouraging voluntary improvements; it also has its drawbacks, such as the fact that it is not equitable and efficient (Sasidharan et al., 2002).

The criteria allowing to obtain sustainability prizes can become successfully guidelines for local actors and managers in strategic planning for sustainable development of their tourist destination. Benchmarking with other tourist destinations would allow, with a systemic point of view, the creation of a virtuous cycle for the long-term development.

## RESEARCH MODEL

The research question of the present study is:

Q: What are the main features that a destination choosing to be sustainable should follow?

This objective is particularly important because current literature doesn't propose a shared illustrative framework to be followed by destinations which pursue the path of sustainability.

This objective is achieved throughout a qualitative research based on a review of literature and on a frequency analysis of the several factors affecting destination sustainability of 82 benchmark European destinations (awarded with important sustainable prizes), classified in five macro-areas: environmental management, eco-tourism/natural assets, supporting assets, cleaner production and tourism carrying capacity. Table 1 shows sample characteristics (Tardivo *et al.*, 2014).

## SAMPLE DESCRIPTION

The sample used in our research is composed of 82 benchmark European tourist destinations awarded in the last five years with the six most important prizes for sustainability:

- Environmentally Sustainable City Award, that aims to reward the adoption of higher standards of sustainable development for cities;
- Blue Flags, a voluntary eco-label awarded to more than 3850 beaches and marinas in 48 countries across Europe, South Africa, Morocco, Tunisia, New Zealand, Brazil, Canada and the Caribbean;
- Eden European Destination of Excellence, a project promoting development models of sustainable tourism across the European Union;
- Tourism for Tomorrow's Awards, one of the world's highest accolades in the Travel & Tourism industry, aimed at recognizing best practices in sustainable tourism within the industry worldwide;
- European Green Capital Award, an award for a European city based on its environmental record;
- European Prize for Tourism and Environment, a prize that the European Union assigns to destinations belonging to Member States that distinguish themselves for these two assets.

The sample is composed of variegated tourist destinations (towns, regions, beaches, etc.) and this heterogeneity allows to determine the main common characteristics that make them excellent. Even if we consider in our analysis only awarded European destinations, this sample could be considered representative for our purposes since they provide guidelines to follow for tourist destinations voted

to sustainability. At the same time, focusing our analysis on the European area allows us to operate with comparable and accessible data.

For each destination we have collected data about the six above-mentioned factors, each of whom classified in 4 to 11 sub-factors that can assume different levels (i.e. for the water shortage the levels are high, on average and low; for networks are excellent, good, scarce, etc.). In this way, it has been possible to compute the frequency registered by the different levels of each sub-factors. We got the value of each index directly by the websites of the different awards or by the tourist website of each destination. We decided to analyze only those factors and sub-factors that satisfy criteria of accessibility and comparability; this means that only sub-factors available and computed with the same methodology in all the Countries have been considered in our analysis.

## ANALYSIS AND DISCUSSION OF RESULTS

Results show how each dimension registers the highest percentages in particular features that can constitute a framework for sustainable destinations that would like to become a benchmark in this field. In Table 1 we can notice how, as long as the dimension of *environmental management* is concerned, all destinations register an efficient energy supply and the presence of tourism ecolabelling; this last one is considered a valuable environmental management tool in tourism (Buckley, 2002; Font, 2002) and can be present in the form of ISO 3166-2; UNI EN ISO 9001:2008; UNI CEI 11352, UNI-EN-ISO 14001, eea, ISO 50001, UNI EN ISO 9001. UNI EN ISO 27001. ECOLABEL and EMAS (university and hotel). Despite this, they are too expensive, they require time and their criteria focus on environmental management (Synergy, 2000; Tardivo *et al.*, 2014).

Table 1: The highest frequencies for environmental management

Environmental Management	Low Water shortage	61%
	Crime indices on average or only in a few areas	46%
	Good quality of energy efficiency	96%
	Good quality of buildings	83%
	Efficient energy supply	100%
	Very rich resources of sea water	45%
	Mild climate	59%
	Environmental agreement (Covenant of Mayors and/or Blue flags)	59%
	Presence of tourism ecolabelling	100%

Source: Adaptation from Tardivo *et al.* (2014)

With the term “ecotourism” we refer to “ecologically sustainable tourism with a primary focus on experiencing natural areas that foster environmental and cultural understanding, appreciation and conservation” (Ecotourism Australia, 2003). It shows (Table 2) the highest percentages with respect to high nature conservation, emphasized by Spilanis *et al.* (2014) as the preservation of the ecosystem capability of providing humans with goods and services essential for their survival and for the local quality of life. In the same way, also increasing tourist development is present in 96% of destinations, symptom of their efforts to invest more and more in this sector. A very high percentage is also registered by artistic and cultural heritage, confirming tourists’ interest in elements of the culture and nature of the host countries supported by Osmanković *et al.* (2010). Percentages lower than 50% are registered only by criteria like *mostly hilly and mountain natural assets* and by *high percentage of protected areas*. The first aspect could be interpreted in a positive way because it is a signal of destinations capable of becoming benchmark despite several obstacles that a hilly or mountain territory can determine (Tardivo *et al.*, 2014); as for the second, despite it is a fundamental indicator of environmental protection - given that the presence of protected areas implies the existence of regulations, norms and limitations affecting tourism development (Bosetti *et al.*, 2006) -, it is not present in more than half of the destinations under inspection.

Table 2. The highest frequencies for ecotourism/natural assets

Ecotourism/Natural assets	Mostly hilly and mountain natural assets	46%
	Presence of beach assets	54%
	Employment in tourism as key point in the employment of destination	83%
	Artistic and cultural heritage	89%
	Congested traffic	67%
	High nature conservation	99%
	High percentage of protected areas	46.5%
	Increasing tourism development	96%

Source: Adaptation from Tardivo *et al.* (2014)

Table 3 shows how the total of destinations has telephone/mobile in line with other national/European areas and almost the total (97%) owns an intensive internet network. This reflects a current trend that shows a high importance and diffusion of mobile communication (Dabholkar, Thorpe e Rentz, 1996). Poor rates are registered by the level of sanitation that is good only in 61% of destinations due to the difficulty of accessing such services as a consequence of a fragmented territory and of cuts in public spending for this sector (Tardivo *et al.*, 2014).

Table 3. The highest frequencies for supporting assets

Supporting assets	Good networks	82%
	Good sanitation access only in some areas	61%
	Intensive internet network	97%
	Telephone/mobile in line with other national/European	100%
	Restaurants in line with other national/European areas	68%
	Numerous lodging	52%
	Historical/cultural tours (Entertainment)	50%
	Natural tours (Entertainment)	50%

Source: Adaptation from Tardivo et al. (2014)

Results for clean production (Table 4) can't be read in a very positive way because they show an optimal level of pollution only in half of the destinations, discrete hygiene and sanitation in 60% of cases (with respect to this, it is important to signal the dramatic situations of services in Andalusia and Stockholm (Tardivo et al., 2014)). Anyway, the most critical datum is registered by recycling waste, low in 44% of destinations, symptom of a not-so-well ingrained awareness of its importance in European destinations, apart for some sporadic cases like Stockholm.

Table 4. The highest frequencies for clean production

Clean production	Optimal level of pollution	50%
	Low percentage of recycling waste	44%
	On average waste generated	83%
	Discrete hygiene and sanitation	65%

Source: Adaptation from Tardivo et al. (2014)

With reference to "tourism carrying capacity" (Table 5), customer care and image collect the highest frequencies: the first one shows high level in 96% of destinations and confirms the increasing importance of the aspects pertaining to the customer (satisfaction levels, etc.) emphasized by Cernat and Gourdon (2012); the second one, high in 94% of destinations, can even contribute to forming destination brands and these two concepts can influence customers' loyalty to a destination (Tasci and Kozak, 2006). High percentages are registered also with regard to good food quality: in fact, local food can become an attraction to tourists thereby increasing the circulation of tourist expenditure through the local economy (Hall and Wilson, 2009). Also number of days of the visit ranges from 4 to 7 in 92% of cases, symptom of destinations not affected just by an excursion flow.

Table 5. The highest frequencies for tourism carrying capacity

Tourism carrying capacity	N. of tourist on average	84%
	High customer care	96%
	Good food quality	92%
	Good level of service	70%
	Good tourist information	49.5%
	Standard furnishing of furniture	72%
	Homogeneity of tourism flows	50%
	Public expenditure in tourism manager (on average)	41%
	Discrete (30-50 Euros) expenditure par day	48%

4 to 7 days of visit	92%
High lodging occupancy	88%
Discrete (60-100 euros) hotel prices	72%
High safety	70%
Positive image	94%

*Source: Adaptation from Tardivo et al. (2014)*

## CONCLUSIVE REMARKS

Results of this research provide a descriptive and prescriptive framework of features that a destination pursuing the path of sustainability should develop. However, sustainability seeks some balance between economics and society: in fact, economic activity and strong social structures can promote a healthy environment and, in turn, healthy ecosystems can enrich the lives of the people who live, work and play in those environments (Flint *et al.*, 2002).

This paper shows how, for environmental management, the highest percentages are registered with by “good quality of energy efficiency” (96%) and tourism ecolabelling (100%) while ecotourism/natural assets show very high values for “high nature conservation” (99%) and “increasing tourism development” (96%). For what concerns supporting assets, the best performances are reached by the datum “Telephone/mobile in line with other national/European areas” (100%) and the “intensive internet network” (97%) while “on average waste generated” (83%) is the sub-factor showing the highest frequency with regard to clean production.

Finally, the tourist carrying capacity is prevalently based on “high customer care” (96%) and “good food quality” (92%).

This research proposes several managerial implications: first, the framework could represent a good guideline to be considered by policymaking in the formulation of their strategic plans for particular destinations (Tardivo *et al.*, 2014); second, these characteristics could lead tour operators to create specific tours in sustainable destinations, created with the tourists, suitably sensitized on these aspects. Furthermore, this research can offer guidelines not only for destinations that choose the path of sustainability but also for tourism investors that would help assess the level of sustainability of their investments in some destinations in terms of environmental risk or added value for the local community.

Starting from this basis, important strategies can be drawn like, for example, a campaign of sensitization towards the adoption of recycling waste, low in 44% of cases, or a major emphasis on the creation of protected areas, present in high percentages only in 46.5% of destinations.

Furthermore, given the high importance attributed to customer care and to image, a higher involvement of tourists in the creation of travel offers should be evaluated and particular campaigns focused on the image of uniqueness of a sustainable tourist destination should be developed.

The future diffusion of the culture of sustainability not only in the entrepreneurial field but also in tourism will strongly change the management of destinations. This doesn't mean that the traditional objective of destination (consisting in the attraction of tourists) will disappear but it will have to coexist (Tardivo *et al.*, 2014). Despite the relevance of this paper both for literature and for managerial purposes, it must be viewed in the light of important limitations: first, it analyzes just frequencies of the different features and doesn't provide a global index of sustainable benchmark destinations; second, it analyzes just destinations of a limited area (Europe) and in a limited period of time (5 years); third, it considers the criteria used by the organizations that deliver awards as the best way to measure the sustainability of an area without involving experts on this topic in this evaluation. Finally, it doesn't propose a distinction among the different typologies of destinations, often characterized by peculiarities that should be taken into account.

These suggestions could be very useful in order to develop this paper in the future, enriching it with a quantitative approach able to result in a more complete assessment of the level of sustainability of a tourist destination, maybe integrated with a Delphi methodology including also bodies, tourist operators, tourists and other important stakeholders in the process of measurement. Furthermore, a similar methodology could be applied to every destination awarded at world level up to now: in this way, destinations would have a very exhaustive framework of features to follow in order to become sustainable.

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## PROMOTING TOURISM TO BOOST EXPORTS: AN EMPIRICAL INVESTIGATION

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### ABSTRACT

This study examines the causal relationship between tourism expansion and exports growth using Thai macroeconomic data. A series of bivariate Vector Autoregressive (VAR) models are estimated. Long-run equilibrium relationship between international tourist arrivals and exports volume is investigated using Johansen rank tests for cointegration, whereas the short-run equilibrium relationship is determined by Granger causality tests. Though results fail to reject that long-run equilibrium relationship between the two factors does not exist, evidence for a bi-directional causality is found. Empirical findings justify the potential of tourism marketing programs on international trade growth. Conversely, exports promotion programs are identified as a means to reinforce tourism industry development.

**Keywords:** *Tourism marketing; Exports expansion; Cointegration; Granger causality*

### INTRODUCTION

International trade allows for exchanges of capital, goods, and services across national borders and territories. Its economic, social, and political importance has been recognized for millennia. In 2012, international merchandise trades totaled US\$17.3 trillion. While top 10 merchandise traders accounted for 51% of world merchandise trade, developing economies capture 42% of the market (World Trade Organization, 2013). Adopting the export-led growth strategy, nations expand their exports in order to speed up their industrialization process. This is based on the belief that the exports growth generates technological spillovers and other externalities to the economy (Balassa, 1978; Feder, 1982; Kormendi & Meguire, 1985; Marin, 1992). Specifically, countries manage to gain hard currency through trade to import commodities manufactured more cheaply internationally to improve productivity (Goldstein & Pevehouse, 2008).

As a result, countries initiate a variety of measures to strengthen their capability to compete in the global market. In January 2010, U.S. President Obama launched the National Export Initiative (NEI) with the goal to renew and revitalize efforts to promote American exports abroad. Programs ranging from improved advocacy, trade promotions, export financing, to trade liberalizing agreements negotiations markedly boost U.S. goods and services exports from US\$ 1.58 trillion in 2009 to a record

high of US\$2.20 trillion in 2012 (Department of Commerce, 2013). Interestingly, the South Korean President Lee Myung-Bak took a less direct approach to foster exports of its national goods and services. In 2009, he assembled a Presidential Council on Nation Branding to proactively shape and manage the South Korean image and reputation. Driven by the spread of popularity of South Korean culture, world's appetite for its national products soars. In particular, South Korean exports increase from US\$ 364 billion in 2009 to US\$ 560 billion in 2013 (Korea International Trade Association, 2014). Remarkably, Korea Tourism Organization reports that South Korea enjoys an approximately 55.75% increase in number of tourists which corresponds to a 51.77% rise in tourism receipts during the same time period (Korea Tourism Organization, 2014).

Marketing literatures have investigated how national factors influence consumer product evaluation processes. In particular, consumers form positive or negative feelings towards a country based on cultural, political, historical, and economic factors. These perceptions, in turn, influence consumers' evaluations and purchase intentions of products from that particular nation (Hong & Kang, 2006; Klein *et al.*, 1998; Mahesrawan & Yi, 2006). On the other hand, another stream of researches (such as Roggenbuck *et al.*, 1990; Weiler & Hall, 1992; Chronis, 2005; Mitchell, 1998; Palmer, 2005; Richards, 2002) argues that "travel offers one of the few contemporary opportunities outside of the education industry where explicitly designated, non-vocational learning about other times, places, and people takes places" (Falk, 2012). Moreover, Shan & Wilson (2001) and Kulendran & Wilson (1998) specifically argue that more foreign tourists to a host country generally increase the image of the country for its goods and services (Katircioglu, 2009). Therefore, it is likely that consumers may update their perceptions towards the country while travelling and adjust their preference for that nation's products. Consequently, the nations which manage to bolster its tourism could experience an upsurge in international demands for its exports.

The objective of this paper is to examine if there exist a cointegration and causal link between tourism growth and exports expansion with the following questions:

1. Does increase in number of tourists translate to exports expansion?
2. Does increase in exports drive tourism growth?
3. Does the causality between tourism and exports growth run in both direction?

Empirical evidence of a relationship between international tourism and exports growth will urge governments to consider foreign visitors not only as a source of income domestically but also as prospective importers. In other words, tourism marketing will emerge as a tool to promote exports. Conversely, governments should acknowledge that exporting merchandise to foreign nations can also act as a nation brand ambassadors. In addition, if the causative process is bi-directional then both

exports and tourism promoting programs must be instituted concurrently for optimal growth of the nation.

The rest of the paper is organized as follows. In the next section, I describe the time series data utilized in the analysis. Methodology which includes unit root tests for stationarity of time series, tests for a long-run relationship, and Granger causality tests are then explained along with empirical results. Finally, I conclude in the last section with discussions and conclusions.

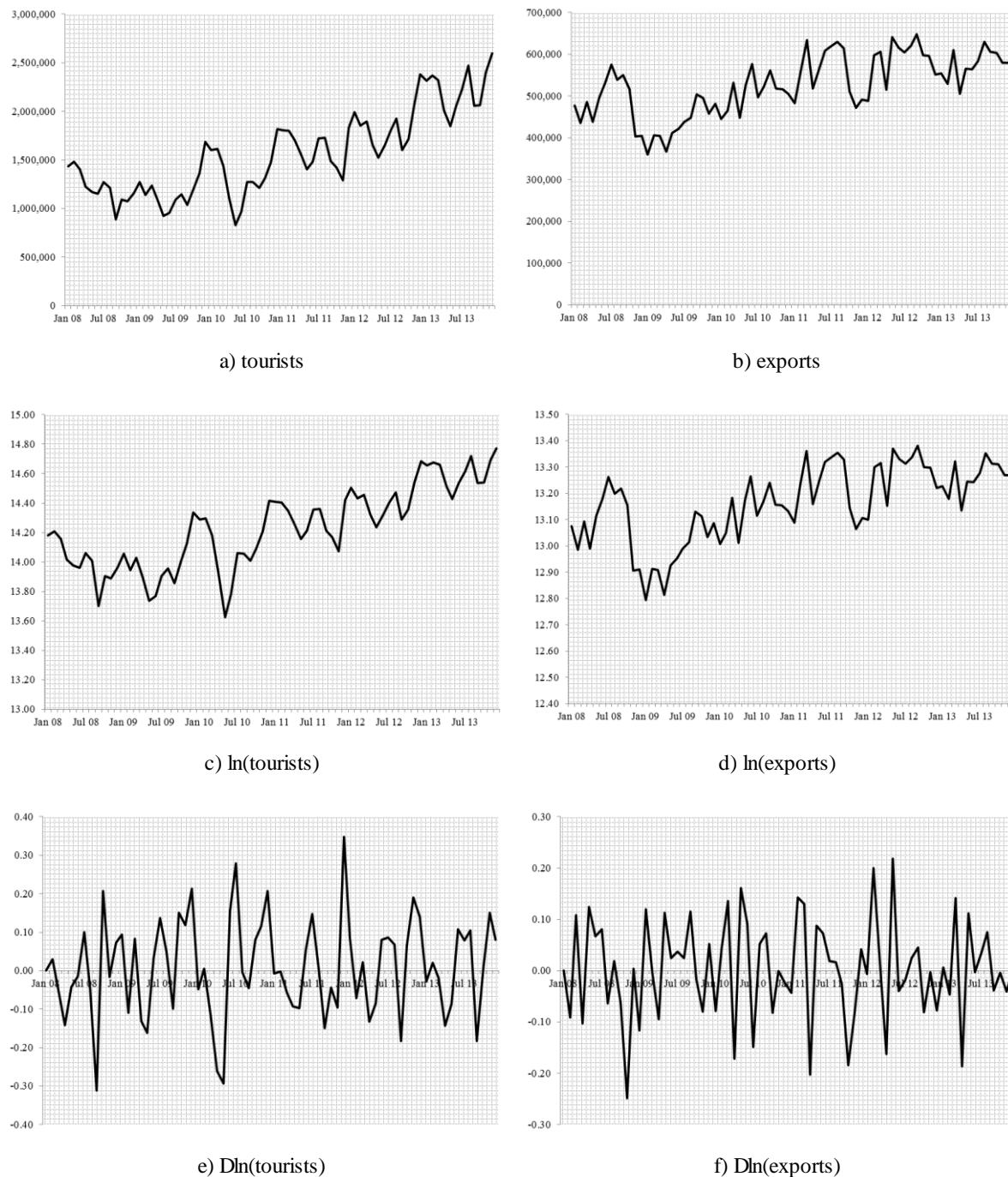
## DATA AND METHODOLOGY

### *Data*

Thai macroeconomic data are used for the analysis as exports is a major economic factor in Thai economy. In 2012, Exports of goods and services accounted for an estimate of 75% of Thai GDP in 2012 (The World Bank, 2014). At the same time, Thailand has been extensively promoting its tourism. “Amazing Thailand” is the slogan for tourism marketing. In 2013, Bangkok, its capital, was identified as the most visited city in the world by the 2013 Global Destination Cities Index, while Suvarnabhumi airport was the world’s most geotagged location on Instagram (Quan, 2013; Abramson, 2013). Statistically, the tourism industry comprised of approximately 6.7% to the country’s GDP in 2007 (Bangkokpost.com, 2008).

This paper employs international tourist arrivals data collected by Immigration Bureau, Thailand, published on the Thai Ministry of Tourism and Sports website. The data contain number of foreign visitors who visit Thailand (*tourists*) during January 2008 to December 2013. Though tourism receipts data are also available, the number of tourist arrivals has been utilized as a reasonable proxy for tourism expansion (Kim *et al.*, 2006; Wang & Godbey, 1994). In order to investigate the relationship between number of tourists and exports, monthly exports (*exports*) data made available by the Bank of Thailand spanning over the same period are also included in my analysis. Both time-series data are shown in Figure 1.

As both variables are of different units, they are transformed using natural logarithmic function to facilitate interpretation of coefficients. In particular, coefficients in log-log models represent elasticities, which measure the resulting percentage change in the dependent variable due to a percentage change in an explanatory variable.  $\ln(\text{tourists})$  and  $\ln(\text{exports})$  plots can also be found in Figure 1.



*Figure 1*  
*Number of tourists and value of Thai exports (million baht), 2008-2013*

#### *Unit root and cointegration tests*

Stationarity requires that the mean, the variance, and the autocovariance of a series are not time varying (Engle & Granger, 1987; Enders, 1995). Granger & Newbold (1974) suggest that conventional econometric techniques such as the ordinary least square method will yield biased results when variables of interest are non-stationary or exhibit a unit root. As a result, it is a necessary first step to transform the data to their stationary form prior to analysis. Unit root test is a means through which

the order of integration of variables can be identified. In this study, the Dickey-Fuller test is used to test the following hypotheses:

$$H_0: \alpha = 1 \quad H_a: |\alpha| < 1$$

, where  $\alpha$  is the autoregressive coefficient. In order to test for a unit root, I allow time series to follow 3 distinct types of models:

1. The zero mean model

$$y_t = \alpha y_{t-1} + \varepsilon_t \quad (1)$$

2. The constant mean model

$$y_t = \mu + \alpha y_{t-1} + \varepsilon_t \quad (2)$$

3. The trend model

$$y_t = \mu + \beta t + \alpha y_{t-1} + \varepsilon_t \quad (3)$$

, where  $y_t$  is the time series and  $\varepsilon_t$  is the white noise error.

The results of testing the order of natural logarithm of *tourists* and *exports* are provided in Table 1. The tests suggest that  $\ln(\text{tourists})$  is non-stationary under the specifications of the zero mean (p-value = 0.6883 and 0.8014) and constant mean (p-value = 0.1311 and 0.3330) models. Interestingly, the null hypothesis of non-stationary when it is tested with the trend model (p-value = 0.002 and 0.004) is rejected. Similarly, the tests support the null hypothesis of non-stationary for  $\ln(\text{exports})$  when the zero mean (p-value = 0.6842 and 0.7994) and constant mean models (p-value = 0.0963 and 0.1663) are employed. On the other hand, the tests of stationarity yield mixed results when the autoregressive coefficient is estimated using the trend model (p-value = 0.0301 and 0.0911).

Common methodologies in transforming non-stationary time series to their stationary form include first differencing and time-trend regression. Based on the aforementioned results, first differencing is the appropriate trend removal procedure. Table 1 also contain results of the Dickey-Fuller tests of non-stationarity for  $\Delta \ln(\text{tourists})$  and  $\Delta \ln(\text{exports})$ . Specifically,  $\Delta \ln(\text{tourists})$  is found to be stationary under all 3 different specifications: zero mean (p-value = 0.0001 and < 0.0001), single mean (p-value = 0.0001 and 0.0001), and trend (p-value = 0.0001 and < 0.0001) models. Likewise, first differenced series of natural logarithm of *exports* is also found to be stationary across all models: zero mean (p-value = 0.0001 and < 0.0001), single mean (p-value = 0.0001 and 0.0001), and trend (p-value = 0.0001 and < 0.0001). In sum, the variables are  $I(1)$  and the first differenced series should be used for analysis.

Variable	Specification	r	p-value	t	p-value
ln(tourists)	zero mean	0.04	0.6883	0.42	0.8014
	single mean	-9.69	0.1311	-1.89	0.3330
	trend	-48.52	0.0002	-5.13	0.0004
Dln(tourists)	zero mean	-107.18	0.0001	-7.14	< 0.0001
	single mean	-108.04	0.0001	-7.12	0.0001
	trend	-110.13	0.0001	-7.16	< 0.0001
ln(exports)	zero mean	0.02	0.6842	0.41	0.7994
	single mean	-10.86	0.0963	-2.33	0.1663
	trend	-22.07	0.0301	-3.21	0.0911
Dln(exports)	zero mean	-123.18	0.0001	-7.78	< 0.0001
	single mean	-123.98	0.0001	-7.75	0.0001
	trend	-123.9	0.0001	-7.69	< 0.0001

Table 1

*Dickey-Fuller unit root tests*

As a unit root is present in both time series, it is necessary to test whether they are cointegrated. Though traditional analyses require time series to be stationary, researchers argue that information may be lost if data are differenced (Engle & Granger, 1987; Watson 1994). In brief, the non-stationary time series in  $Y_t$  are cointegrated if there is a linear combination of them that is stationary or  $I(0)$ . That is, cointegration means that non-stationary variables are integrated in the same order with the residuals stationary. It is believed that cointegrated time series with a long-run equilibrium relationship cannot drift too far apart from the equilibrium because economic forces will act to restore the equilibrium relationship (Zivot & Wang, 2006). Statistical tools such as the error correction model (ECM) utilize the concept of cointegration to study the link between long-run equilibrium relationship and short-run dynamic adjustment mechanisms.

Results for tests of cointegration are shown in Table 2. Based on the Johansen cointegration rank tests, the null hypothesis of no cointegration is not rejected as the trace statistics (9.77) is less than the critical value (12.21) (Johansen & Juselius, 1990; Johansen, 1988; Johansen, 1995a; Johansen, 1995b). Therefore, results suggest that long-run equilibrium between number of tourists and amount of exports does not exist. Consequently, vector autoregressive models (VAR) will be utilized to analyze the time series.

Hypothesis	Eigenvalue	Trace	Critical Value
Ho: rank = 0 Ha: rank > 0	0.13	9.77	12.21
Ho: rank = 1 Ha: rank > 1	0.03	1.54	4.14

Table 2

*Cointegration rank test using trace*

*VAR model*

I conjecture that there exists a relationship between tourism growth and international trade. In particular, it is believed that these variables are not only contemporaneously correlated to each other, but they are also correlated to each other's past values. Therefore, models with exogenous variables are not appropriate (Sims, 1980). In this study, the vector autoregressive model (VAR) will be estimated to fit the time series data. VAR allows for an estimation of a short-run dynamic relationship among endogenous variables. As previously discussed, the first differenced series will be used and error correction terms will not be included in the VAR model. The  $p^{\text{th}}$ -order bivariate VAR system is given by:

$$\begin{bmatrix} \Delta \ln(\text{tourists})_t \\ \Delta \ln(\text{exports})_t \end{bmatrix} = \delta + \Phi_1 \begin{bmatrix} \Delta \ln(\text{tourists})_{t-1} \\ \Delta \ln(\text{exports})_{t-1} \end{bmatrix} + \dots + \Phi_p \begin{bmatrix} \Delta \ln(\text{tourists})_{t-p} \\ \Delta \ln(\text{exports})_{t-p} \end{bmatrix} + \varepsilon_t \quad (4)$$

, where  $\delta = \begin{bmatrix} \delta_1 \\ \delta_2 \end{bmatrix}$  is a constant vector and  $\Phi_i$  is a  $2 \times 2$  matrix of parameters.  $\varepsilon_t$  is a vector of white noise process with  $\varepsilon_t = \begin{bmatrix} \varepsilon_{1t} \\ \varepsilon_{2t} \end{bmatrix}$  such that  $E(\varepsilon_t) = 0$ ,  $E(\varepsilon_t \varepsilon_t') = \Sigma$ , and  $E(\varepsilon_t \varepsilon_s) = 0$  for  $t \neq s$ .

A series of bivariate VAR systems of different orders are estimated using VARMAX procedure in SAS. In order to determine the optimal number of lags,  $p$ , to be included in the model, 2 distinct information criteria are calculated: Corrected Akaike Information Criteria (AICC) and Schwartz Bayesian Criteria (SBC).

$$AICC = \log(|\bar{\Sigma}|) + \frac{2r}{T-k} \quad (5)$$

$$SBC = \log(|\bar{\Sigma}|) + \frac{r \log(T)}{T} \quad (6)$$

, where  $r$  denotes the number of parameters estimated,  $k$  is the number of dependent variables,  $T$  is the number of observation used to estimate the model, and  $\bar{\Sigma}$  is the maximum likelihood estimate of  $\Sigma$ . Table 3 reports criterion values for models with different number of lags. As the optimal number of lags is associated with the model yielding the smallest criterion value, results suggest that 9<sup>th</sup>-order VAR process best characterizes the time series data of interest.

No. of lags	AICC	SBC
1	-8.75	-8.57
2	-8.85	-8.55
3	-8.77	-8.36
4	-8.71	-8.21
5	-8.76	-8.17
6	-8.70	-8.03
7	-8.79	-8.07
8	-8.97	-8.21
9	-9.00	-8.23
10	-8.88	-8.13
11	-8.68	-8.97
12	-8.35	-7.79
13	-8.07	-7.71

Table 3  
Model comparison



*Granger causality tests*

Enders (1995) proposes that granger causality test is best suited to determine whether the lags of one variable significantly enter into the equation for another variable. This sense of causality is defined by Granger (1969) and Sims (1972). This methodology is employed in this paper to determine not only the relationship between tourism and exports growth but rather their causality. Though a conventional F-test may be utilized to test the restriction that all lags of the variable do not enter significantly into VAR model specification, this paper employs Wald statistic instead. Consider (4) in the following form:

$$\begin{bmatrix} \Phi_{11}(B) & \Phi_{12}(B) \\ \Phi_{21}(B) & \Phi_{22}(B) \end{bmatrix} \begin{bmatrix} \Delta \ln(\text{tourists})_t \\ \Delta \ln(\text{exports})_t \end{bmatrix} = \begin{bmatrix} \delta_1 \\ \delta_2 \end{bmatrix} + \begin{bmatrix} \varepsilon_{1t} \\ \varepsilon_{2t} \end{bmatrix} \quad (7)$$

, where  $\Phi_{ij}(B)$  are vectors of coefficients.

According to (7), the variable  $\Delta \ln(\text{tourists})_t$  causes  $\Delta \ln(\text{exports})_t$  if  $\Phi_{21}(B)$  is not statistically different from zero. On the other hand,  $\Phi_{12}(B) = 0$  would infer that  $\Delta \ln(\text{exports})_t$  does not cause  $\Delta \ln(\text{tourists})_t$ . The implication of this model structure is that future values of the process  $\Delta \ln(\text{tourists})_t$  can either be influenced by its own past value and not by the past value of  $\Delta \ln(\text{exports})_t$  or both, and vice versa. For the case where the future  $\Delta \ln(\text{tourists})_t$  are not affected by the past values of  $\Delta \ln(\text{exports})_t$ , it would be more appropriate to model  $\Delta \ln(\text{exports})_t$  separately from  $\Delta \ln(\text{exports})_t$ . That is, the VAR model is unnecessary.

The CAUSAL statement under VARMAX procedure in SAS is employed to conduct Granger causality tests. Specifically, Wald statistic is calculated for the 2 following sets of hypotheses:

$$H_0: \Phi_{12}(B) = 0 \quad H_a: \Phi_{12}(B) \neq 0$$

and

$$H_0: \Phi_{21}(B) = 0 \quad H_a: \Phi_{21}(B) \neq 0$$

As suggested by Pindyck & Rubinfeld (1991) and Shan & Sun (1998), tests are performed for different lag selections to examine robustness of results. Table 4 provides chi-square and corresponding p-value for Granger causality tests. The null hypothesis that exports growth do not 'Granger cause' increased number of tourists is rejected across practically all models except for 1<sup>st</sup>-order VAR (p-value < 0.0001 for model with the optimal number of lags). Consistency in results suggest the export-led tourism growth hypothesis. Interestingly, tourism growth also induces greater export volumes as results allows for rejection of the null hypothesis that tourism growth does not 'Granger cause' exports expansion (p-value < 0.0001 for model with the optimal number of lags). Though absence of cointegration refutes the existence of a long-term relationship, short-run reciprocal feedback is evident between the two series.

Hypothesis	Chi-square	p-value
Ho: Exports do not 'Granger cause' number of tourists		
Ha: Exports 'Granger cause' number of tourists		
Optimal number of lag:		
9	38.17	< 0.0001
Other VAR orders		
1	1.29	0.2554
2	6.56	0.0376
3	8.48	0.0371
4	9.06	0.0595
5	21.98	0.0005
6	26.23	0.0002
7	28.38	0.0002
8	42.68	< 0.0001
10	40.64	< 0.0001
11	39.96	< 0.0001
12	23.85	0.0213
13	23.40	0.0371
Ho: Number of tourists does not 'Granger cause' exports		
Ha: Number of tourists 'Granger cause' exports		
Optimal number of lag:		
9	35.62	< 0.0001
Other VAR orders		
1	2.64	0.1042
2	6.59	0.0370
3	6.30	0.0977
4	8.90	0.0637
5	7.94	0.1594
6	9.09	0.1684
7	23.73	0.0013
8	35.18	< 0.0001
10	33.69	0.0002
11	21.68	0.0270
12	13.95	0.3036
13	18.14	0.1522

Table 4

*Granger-causality wald tests for exports and number of tourists*

## DISCUSSIONS AND CONCLUSIONS

Using Thai macroeconomic data, this study empirically tests for both short-run and long-run equilibrium relationships along with the direction of causality between exports growth and international tourist arrivals expansion. Johansen rank tests for cointegration show that a long-run equilibrium relationship does not exist between the two time series. However, results do not entirely discourage tourism marketing as a means to boost exports. Results from Granger causality tests applied to a series of VAR model confirm short-run equilibrium relationship. In particular, I find that tourism growth 'Granger cause' an increase in international trade. Similarly, exports expansion

'Granger cause' a surge in number of tourist arrivals. Together, the bi-directional causality suggests that stimulating both factors can tremendously enhance the nation's productivity output.

Results from this study provide several future research directions. For instance, the VAR models could be expanded to include other factors such as the GDP of tourists' home country, exchange rates, and a measure for the distance between Thailand and tourists' country of residence. Furthermore, it may be worthwhile to determine if tourism marketing is effective in raising exports for all countries alike. Such results could lead to better understanding of the root cause for the relationship between exports and tourism growths.

In sum, this paper suggests that governments should implement tourist-attracting policies as a means of economic development as it does not only support the tourism industry but also expand exports volumes. Conversely, programs supporting merchandise exports must be adequately sponsored by governments as they produce externalities to the tourism sector.

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## THE CONTRIBUTION OF FRENCH LITERATURE AUTHORS TO THE FRENCH LAW AND POLICY ON TECHNICAL WORKS

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### ABSTRACT

Public management depicts the dominant political tendencies in each country and is influenced by globalized Europe's policies. The new public management is the current innovation of the capitalistic system in public administration which pushes the state away from the traditional bureaucratic model of organizing public services towards managerialism: a management based on market rules. Can this tool be used efficiently in all public spheres? Can we, for example, protect our monuments through Public-Private Partnerships and produce a new generation of laws on avant-garde agriculture methods and products, exemplified by Biological Agriculture?

Since the age of Enlightenment, society went through a deep reform using reason and scientific method to challenge ideas grounded in tradition and faith. Great men, writers, politicians and architects, such as Victor Hugo, Antoine-Chrysostome Quatremère de Quincy, Prosper Mérimée, Eugène Viollet-le-Duc, André Malraux, Le Corbusier, Antoine de Saint-Exupéry, the pioneer of science-fiction genre Jules Vernes etc. inspired people through their life and work and contributed to the gradual development of our perception for humanity, science, conservation, legislation and policies. For instance, the great novelist Malraux, as Culture Minister, proposed the so-called "Malraux law", in 1962, on the "safe-guarded" domains and thus he achieved to prevent entire neighborhoods, in Paris and other french cities, from demolition. The intention of this essay is to perceive critically the way the state manages heritage and examine the possibilities of management in the area of new scientific discoveries.

**Keywords:** *Public - Private Partnership (PPP), French legislation, Monuments, Discoveries, New Public Management (NPM), Culture*

### INTRODUCTION

Philosophy, art and politics have contributed to the evolution of French technical legislation especially in the fields of heritage law and innovative technologies, such as aeronautics, nuclear power, renewable energy, etc. Indeed, French writers, politicians and architects, such as Victor Hugo,

Antoine-Chrysostome Quatremère de Quincy, Prosper Mérimée, Eugène Viollet-le-Duc, André Malraux, Antoine de Saint-Exupéry, the pioneer of science-fiction genre Jules Vernes etc. influenced through their work, as writers or civil servants of the State, the establishment of technical legislation adopted today at international level.

## RESTORATION IN FRANCE

In France, the cradle of Enlightenment, since the 18th century, the importance and didactic value of the remainings of the past have been clearly realized. During the Revolution, the Crown and Church property became national and the term "Historic monument" emerged. The new term in fact meant "National monument": the estate of French people, which should be protected as part of nation's identity, and be preserved for future generations. The destruction of monuments during the period 1729-1794, led to reactions: the disasters were branded as vandalisms, the first public museums were created (Louvre, museum of monuments of France) and simultaneously began the first attempts of recording and indexing nationwide the monumental national wealth.

In 1793, the "Provisional Committee for the Arts" expedited a National Assembly, with instructions for indexing and maintaining the objects that could be beneficial for the arts, science and education. Indexing along with the characterization of monuments (classification) are two innovative, internationally, protective measures which will contribute decisively over the years to enrich, deepen and widen the concept and purpose of monumental protection. In the first three decades of the 19th century, remnants of medieval past in France, such as gothic cathedral churches and castles (*chateaux*), emerged as the most important French monuments, main expression and contribution of French culture in the European cultural scene.

Although the concept of "Historic Monuments" existed since the Revolutionary period, many ancient buildings, especially religious ones, once made national property, were dismantled or destroyed. It wasn't until the spread of the Romantic Movement a generation later (with the publication of *Le Génie du Christianisme*, by Chateaubriand in 1802, and *Notre-Dame de Paris* by Victor Hugo in 1831), that institutions began to become aware of the necessity of preservation. Since 1819, the state budget contained a provision for historic monuments and in 1830, the Interior Minister, François Guizot, created the post of Inspector of Historic Monuments, a key-position for protection, and Ludovic Vitet was named the first Inspector of Historic Monuments, succeeded in 1834 by Prosper Mérimée.

The first list of Monuments of National Importance was published in 1840. It was only much later, in 1893, that the function of Head Architect of Historic Monuments was created. In 1913, a law specified the framework and criteria for monument protection. After World War I, this protection began to

include private property, edifices and artworks from the modern (1453-1789) and contemporary (after 1789) epochs.

The restoration doctrine was formalised in 1931, by the *Athens Charter*, which advocated an "enlightened criticism" in interventions, and urged each country to address the concerns relative to the conservation of historic sites within the framework of national legislation. The principle of restoration was the preservation of existing edifices. However, good intentions were often hindered by the limited knowledge concerning the objects to be restored, as art history was only just emerging as a scientific discipline in the nineteenth century. ( <http://www.reims-cathedral.culture.fr/restoration-in-france.html>)

## CONTRIBUTION OF FRENCH AUTHORS TO HERITAGE PROTECTION

**Antoine Quatremère de Quincy (1755-1849)** was leader of the French Academy under Napoleon, theorist and historian of 18<sup>th</sup> century French art and artistic biographer. Quatremère initially studied law before taking courses in art and history at the Collège de Louis-le-Grand. He also trained as a sculptor. After visiting Naples and later Rome, he became interested in Classical Greek sculpture and architecture. He wrote several essays on architectural theories, winning a competition sponsored by the *Académie des Inscriptions et Belles-Lettres* in 1785. Based on his belief that style and function were inseparable in architecture, Quatremère orchestrated the renovation of the Parisian church of St. Genevieve into the Panthéon, France's national mausoleum. He also advocated the use of the Neo-Classical style in other buildings.

The events of French Revolution caused him to become an advocate for artistic freedom and copyright. He was elected a deputy to the Legislative Assembly in 1791, but during the Reign of Terror imprisoned for two years, and nearly executed twice (1793 and 1795). After being exiled to Germany in 1797, Quatremère began reading the works of Immanuel Kant (1724-1804), and Gotthold Lessing, subsequently incorporating their philosophical ideas into his own theories on aesthetics. As a member of the Council of the 500 in 1797, he served both there and later as a member of the *Académie des Inscriptions et Belles Lettres* in 1804.

In 1815, as the *Intendant Général des Arts et Monuments Publics*, he published a critical evaluation of French museum practices aimed at the practices of the museum builder Alexandre Lenoir, entitled "Considérations Morales". While serving as the Secrétaire Perpétuel to the Académie des Beaux-Arts from 1816-1839, Quatremère gave funeral orations of Académie members. His important essay on the fine arts, "*Essai sur la nature, le but et les moyens de l'imitation dans les beaux-arts*", was published in 1823 and translated into English by 1837. Quatremère was instrumental in assisting the career of Guillaume-Abel Blouet by convincing the Académie Royale d'Architecture to publish Blouet's



important report on monuments restoration, *Restauration des thermes d'Antonin Caracalla à Rome* in 1828. He also published biographies of several Italian artists, including Antonio Canova (1823), Raphael (1824), and Michelangelo (1835).

Quatremère's theories epitomized the Academy's stance of the Greco-Roman style as the only appropriate building type for architects. This would be challenged in succeeding generations by architectural historians such as Jean-Baptiste Lassus and Eugène Viollet-le-Duc. Quatremère was the last "armchair" archaeologist, eschewing the excavation site for personal and sometimes romantic interpretations of art. However, Quatremère strongly argued for keeping works of art *in situ* and against Napoleon's conglomerate museum. He successfully put forward the idea that the true heritage of Rome was the Roman sky, the topography of its hills, the mentality of its inhabitants, the music of its language, its monuments and once exiled to the banks of the Seine or elsewhere, they would have lost their true value. (Poulot, 2011)

**Victor Hugo (1802-1885)** was a French novelist, poet and dramatist, the most important and prominent representative of the Romantic movement. He is considered one of the greatest and best known French writers. His best-known works are the novels "*Les Misérables*" (1862) and "*Notre-Dame de Paris*" (1831) also known in English as "*The Hunchback of Notre-Dame*". In France, Hugo's literary fame comes first from his poetry but also rests upon his novels and his dramatic achievements. Though a committed royalist when he was young, Hugo's views changed as the decades passed, and he became a passionate democrat. His work touches upon most of the political and social issues and artistic trends of his time. (<http://en.wikipedia.org>)

His interest for the french medieval monuments is depicted in his romantic/ gothic novel "*The Hunchback of Notre Dame*" that was published in 1831 and quickly translated into other languages across Europe. The title refers to the Notre Dame Cathedral in Paris, on which the story is centered. Victor Hugo began writing the novel in 1829, largely to make his contemporaries more aware of the value of Gothic architecture, which was neglected and often destroyed to be replaced by new buildings, or defaced by replacement of parts of buildings in a newer style. For instance, the medieval stained glass panels of Notre-Dame de Paris had been replaced by white glass to let more light into the church. This explains the large descriptive sections of the book, which far exceed the requirements of the story. A few years earlier, Hugo had already published a paper entitled *Guerre aux Démolisseurs* (*War to the Demolishers*) specifically aimed at saving Paris' medieval architecture.

The case (ypothesis) of this epic drama presents the heroine, gypsy Esmeralda, dancing in the courtyard of the church "Notre Dame" where she attracts the attention of archdeacon Claudius Froll who desires to conquer her and tries to kidnap her with the help of Quasimodo the bell-ringer, a very ugly but vigorous man. Esmeralda manages to avoid abduction thanks to the intervention of a group

of soldiers under the officer Phoebus de Satoper, whom she meets after a few days. Phoebus falls in love with Esmeralda and later the jealous Archdeacon kills him and lets Esmeralda be accused of murder. Esmeralda prefers death rather than surrender to the appetites of the priest who suggests to free her with terms. Esmeralda is led to the gate of the temple for execution where Quasimodo intervenes, out of love, and saves her by bringing her inside the Temple. After many adventures, Esmeralda is eventually arrested and executed. Quasimodo kills the Archdeacon by pushing him of the spire from where they were watching Esmeralda's execution. At the end, Quasimodo dies at the cemetery next to Esmeralda's body where he was found hugging her dead body.

The popular novel-masterpiece had a great impact on the audience and attracted thousands of tourists in Paris who wanted to visit the Cathedral of Notre Dame. It also inspired a renewed appreciation for pre-Renaissance buildings, which thereafter began to be actively preserved. Indeed, the City of Paris soon after the publication of the book acted for the restoration of the much-neglected Cathedral of Notre Dame. The first archaeological companies were already established in France since 1820 and they were focusing in the study of medieval art, while in 1832, Hugo published a new pamphlet about the values of a building: *"There are two things in an edifice: its use and its beauty. Its use belongs to its owner, its beauty to everyone. Thus, the owner exceeds his rights in destroying it."* The idea of cultural heritage protection clearly derives from this text.

In 1841, after three unsuccessful attempts, Hugo was finally elected to the *"Académie française"*, solidifying his position in the world of French arts and letters. Thereafter he became increasingly involved in French politics. He was elevated to the peerage by King Louis-Philippe in 1841 and entered the Higher Chamber as a *pair de France*, where he spoke against the death penalty and social injustice, and in favour of freedom of the press and self-government for Poland. However, he was also becoming more supportive of the democratic form of government and, following the 1848 Revolution and the formation of the Second Republic, was elected to the Constitutional Assembly and the Legislative Assembly.

When Louis Napoleon III seized complete power in 1851, establishing an anti-parliamentary constitution (*Coup d'état*), Hugo openly declared him a traitor to France and lived in self-exile until 1870. While in exile, Hugo published his famous political pamphlets against Napoleon III, *Napoléon le Petit* and *Histoire d'un crime* and in 1859, he refused a granted amnesty by Napoleon III, as it meant he would have to curtail his criticisms of the government. It was only after Napoleon III fell from power and the Third Republic was proclaimed that Hugo finally returned to his homeland, where he was promptly elected to the National Assembly and the Senate. Victor Hugo not only was a great writer but also a great politician who believed in human rights and freedom. He was buried into the Panthéon.

Because of his concern for the rights of artists and copyright, he was a founding member of the “*Association Littéraire et Artistique Internationale*”, which led to the Berne Convention for the Protection of Literary and Artistic Works. However, in Pauvert's published archives, he states strongly that “*any work of art has two authors : the people who confusingly feel something, a creator who translates these feelings, and the people again who consecrate his vision of that feeling. When one of the authors dies, the rights should totally be granted back to the other, the people*”. (<http://en.wikipedia.org>)

In 1834, the role of *Inspector General of Historical Monuments* was appointed to **Prosper Mérimée (1803-1870)**: french dramatist, historian, archaeologist, and short story writer with studies on law as well as in Greek, Spanish, English, and Russian. Mérimée, through his institutional role, contributed to the protection of cultural heritage, as he was responsible to identify sites for conservation and give a scientific opinion for the purpose of conservation and restoration and the necessity for future projects on monuments of the State. He was a born archaeologist, combining linguistic faculty of a very unusual kind with accurate scholarship, with remarkable historical appreciation, and with a sincere love for the arts of design and construction. In 1837, the Committee of Historical Monuments was established of volunteers to assist Mérimée in his work. Due to his untiring action the Office of Historical Monuments (*Service des Monuments Historiques*) was also created, while parallelly he formed the theoretical basis for the development of the doctrine for the total stylistic restoration of monuments.

Today, in France - in honor to Prosper Mérimée - exists “The Base Mérimée”, which is the French database of monuments listed as having national significance in history, architecture or art. It was created in 1978, and placed online in 1995, by the French Ministry of Culture, division of architectural heritage. The database is periodically updated and contains information derived from the first survey of historic monuments made by Mérimée in 1840 and cultural heritage inventory, specifically: religious, domestic, agricultural, educational, military and industrial architecture. The 1840's first official list of Monuments of National Importance included 1.034 edifices, mostly medieval, and all of which were public property.

Important works of Mérimée are the restoration of Cluny (baths in Paris), and the discovery of a textile project “The Lady and the Unicorn” which is often considered one of the greatest works of art of the Middle Ages in Europe. *The Lady and the Unicorn* (*La Dame à la licorne*) is the modern title given to a series of six tapestries woven in Flanders of wool and silk, from designs drawn in Paris around 1500. The tapestries were rediscovered in 1841 by Prosper Mérimée in Boussac castle where they had been suffering damage from their storage conditions and are on display in the National Medieval Art Museum (*Musée national du Moyen-Âge or Musée de Cluny*) in Paris since 1882. The Museum is housed

in the gothic-style Hôtel de Cluny, a 15th century mansion which was built atop the foundations of Roman thermal baths.

Mérimée's contribution to the salvation of monuments is major. He understood the importance of both mobile monuments (*objets mobiliers*) and historical buildings (*des immeubles*). This distinction will later be depicted in the law of 31 december 1913 for the historical monuments. He also considered the display of antiquities such as "*The Lady and the Unicorn*" in a monument - museum such as "*Les Thermes de Cluny*" and the "*Hotel de Cluny*". So, not only we meet the use of a monumental complex (hotel and baths) as a museum but also the exhibition of mobile antiquities into historical buildings. The act of converting monuments from "dead and scattered" historical facts into living "forms" was central to Romantic cultural theory and art history. It is a kind of archeology, the archeology of revivification. (Haley, p.19)

**Eugène Viollet-le-Duc** (1814-1879) was a French architect and theorist, famous for his interpretive "restorations" of medieval buildings. Born in Paris, he was a major Gothic Revival architect. Viollet-le-Duc was rebellious and anticlerical. He refused to enter the "*École des Beaux-Arts*" and obtained practical experience in several architectural offices. In 1835, he returned from study in Italy.

In 1849, Mérimée inspector general of a committee responsible for the awarding of restoration projects of historical monuments (*Historique general des Monuments*) commissioned Viollet-le-Duc the restoration of *Romanesque abbey of Vézelay*, where he proceeded on a stylistic restoration and replaced the pointed vaults of the 13th century with semicircular vaults, characteristics of the 12th century, to achieve a sense of unity in the church, but also to highlight the changes of character at the building. This work was the first of a long series of restorations. Viollet-le-Duc's restorations at *Notre Dame* brought him national attention, since the value of the cathedral, as a national monument, was already understood through Victor Hugo's novel.

Viollet-le-Duc's "restorations" frequently combined historical fact with creative modification. For example, under his supervision, *Notre Dame* was not only cleaned and restored but also "updated", gaining its distinctive third tower in addition to other smaller changes. Viollet-le-Duc wrote that restoration is a "*means to reestablish [a building] to a finished state, which may in fact never have actually existed at any given time*". The type of restoration employed by Viollet-le-Duc, was decried by John Ruskin as "a destruction out of which no remnants can be gathered: a destruction accompanied with false description of the thing destroyed". This argument is still a current one when restoration is being considered for a building or landscape. In removing layers of history from a building, information and age value are also removed which can never be recreated. However, adding features to a building, as Viollet-le-Duc also did, can be more appealing to modern viewers. However, modern conservation

practice considers Viollet-le-Duc's restorations too free, too personal, too interpretive, but some of the monuments he restored might have been lost otherwise.

Viollet-le-Duc is considered by many to be the first theorist of modern architecture. Sir John Summerson wrote that "there have been two supremely eminent theorists in the history of European architecture - Leon Battista Alberti and Eugène Viollet-le-Duc. His architectural theory was largely based on finding the ideal forms for specific materials, and using these forms to create buildings. His writings centered on the idea that materials should be used 'honestly'. He believed that the outward appearance of a building should reflect the rational construction of the building. His theories of rational architectural design link the revivalism of the Romantic period to the 20th-century Functionalism.

(<http://en.wikipedia.org>)

**André Malraux** (1901 - 1976) was a French surrealist novelist, art theorist, resistance leader, 2<sup>nd</sup> world war hero and was appointed by President Charles de Gaulle as Minister of Information (1945–1946) and subsequently as France's first Minister of Cultural Affairs during de Gaulle's presidency (1959–1969).

He was arrested at the tender age of 21 for attempting to steal bas-reliefs from a Khmer temple in Cambodia, a precocious act that presaged a lifelong obsession with art, and art collecting, in all its forms. On his return to France, Malraux launched two fine-press series, *la Sphère* and *Aux Aldes* and published *The Temptation of the West* (1926). The work was in the form of an exchange of letters between a Westerner and an Asian, comparing aspects of the two cultures. This was followed by his first novel *The Conquerors* (1928), and then by *The Royal Way* (1930) which reflected some of his Cambodian experiences. In 1933, Malraux published *Man's Fate (La Condition Humaine)*, a novel about the 1927 failed Communist rebellion in Shanghai, which was awarded the 1933 Prix Goncourt. His first book on art, *Oeuvres gothico-bouddhiques du Pamir*, on his experience with southeast Asian art appeared in 1930 and after his father death, he participated on excavations in Iran and Afghanistan.

During the 1930s, Malraux was active in the anti-fascist Popular Front in France. At the beginning of the Spanish Civil War he joined the Republican forces in Spain as a volunteer, serving in and helping to organize the small Spanish Republican Air Force. After the war, Malraux was awarded the Médaille de la Résistance and the Croix de guerre. The British awarded him the Distinguished Service Order. Shortly after the war, General Charles de Gaulle appointed Malraux as his Minister for Information (1945–1946) and soon after that, in 1947 his art-historical career began in earnest. He issued, the first volume, *Le Musée Imaginaire*, of his most-important art series, *La Psychologie de l'art*, a work he had been formulating since 1935. The second volume, *La Creation artistique* appeared in 1948 and volume three, *La monnaie de l'absolu*, was published in 1949. In 1951, Malraux expanded and reissued *La*

*Psychologie de l'art* as the *The Voices of Silence (Les Voix du Silence)*, the first part of which has been published separately as *The Museum without Walls*. In 1952, A two-volume picture book, *Le musée imaginaire de la sculpture mondiale* was published, followed, in 1957, by a philosophical narrative on art, *La métamorphose des dieux*.

When de Gaulle returned to the French presidency in 1958, Malraux became France's first Minister of Cultural Affairs, a post he held for 11 years. Among many initiatives, he launched an innovative program to clean the blackened facades of notable French buildings, revealing the natural stone underneath. He also created a number of cultural centers (art museums, libraries), known as *Maisons de la Culture*, in provincial cities, and worked to preserve France's national heritage. He also oversaw the restoration of the Louvre Museum colonnade to its original state (<http://en.wikipedia.org>).

Malraux's legacy as an art theorist is uneven. His art books emphasized ideas rather than original scholarship. His project, the "Imaginary Museum" or his "museum without walls," as he described it, is an archive that he began in 1947, a montage of photographs of art from all around the globe and throughout history, stretching from Roman sculptures to Impressionist painting. Given that the breadth and diversity of today's world of art far surpasses the capacities of any single art museum, or even two or three, and that many of the objects are in any case not moveable, *the musée imaginaire* is an imaginary collection of all the works, both inside and outside art museums, that we today regard as important works of art. Malraux's idea to use photographs of art objects from different cultures in his books, opened a whole different world to the European reader and art lover. Through art books the public is introduced to the culture and creations of different civilisations that in other cases would have to travel thousands of miles to meet. He also suggested that art is universal. (<http://www.dictionarjofarthistorians.org>)

In 1996, in recognition of his contributions to French culture, his ashes were moved to the Panthéon, on the twentieth anniversary of his passing.

## PUBLIC MUSEUMS IN FRANCE

During the 19th century, the creation of public museums was an innovative intervention of the state in the economy and constituted a public policy for the protection of monuments. Public museums were based on the old regime's confiscated royal collections (antiquities, paintings, etc) which were exhibited in palatial monuments, such as The Louvre and Versailles. Between 1895 and 2004, France's national museums constituted a solidary community of institutions directly depending on the Ministry of Culture through the RMN (*Réunion des Musées Nationaux*), reflecting the concept of the unity of the nation's collections.

The most important reforms touching on the status of national museums over the last two decades were devoted to the development of a new system of museum management and financing. National museums have progressively been detached from the centralising management of the RMN which was thought to be too restrictive and incapable of providing the dynamic approach needed to react to the development of a fast changing cultural economy. The first major transformations took place in the 1990s when the Louvre (1992) and Versailles (1995) were given the status of autonomous state

establishments, allowing them to manage their own budgets and profits directly and to increasingly turn to private funding in order to complete their budgets for acquisitions, and to expand their activities.

Autonomous in terms of their budget, the museums can use the profits that they generate and reinject them directly back into their own projects. However, they retain their status as public establishments: their staff remain state employees and they are administered according to the public law regime. Generally speaking, new financing policies, although providing continued support from the central government, have placed requirements on museums to seek out additional and novel methods of financing through commercial strategies (the development of museum shops as a rule dates back to the 1980s) and patronage and more generally by developing the range of services that they offer, styling themselves as cultural operators. It is this new politique “de l’offre” that perhaps best sums up the spirit of development at work over the last decade.

(<http://liu.diva-portal.org/smash/get/diva2:557284/FULLTEXT01.pdf>)

## CULTURAL PPPS IN FRANCE

A public-private partnership (PPP) is a government service or private business venture which is funded and operated through a partnership of government and one or more private sector companies. PPP involves a contract between a public sector authority and a private party, in which the private party provides a public service or project and assumes substantial financial, technical and operational risk in the project. In some types of PPP, the cost of using the service is borne exclusively by the users of the service and not by the taxpayer.

Typically, a private sector consortium forms a special company called a "special purpose vehicle" (SPV) to develop, build, maintain and operate the asset for the contracted period. In cases where the government has invested in the project, it is typically (but not always) allotted an equity share in the SPV. The consortium is usually made up of a building contractor, a maintenance company and bank lender(s). It is the SPV that signs the contract with the government and with subcontractors to build the facility and then maintain it. In the infrastructure sector, complex arrangements and contracts that guarantee and secure the cash flows make PPP projects prime candidates for project financing.

(<http://en.wikipedia.org>)

In the cultural context, the use of PPP contracts by the French Administration remains restricted. However, successful examples of cultural PPPs in France are: a. the Theatre of Archipelago in Perpignan that hosts a cross-border festival, shows and co-productions and has been in operation since October 2011, b. The Marine Museum in Biarritz, a thermal-balance building that requires no heating in the winter or air conditioning in the summer, for a scientific approach to oceanography

through experiments and c. the National Museum of Civilisations of Europe and of the Mediterranean in Marseille: an ancient fortress which was closed for centuries is now connected with the main museum through a long bridge, offering to visitors a “museum-walk”. This intervention indicates the approach to the legal principle of sustainability for the historical monuments and underlines the importance of heritage for local communities. (Evangelatou *et al.*, 2013). On the other hand, failed case of cultural PPP is the project for the enhancement of the computers system in the Palace of Versailles. The failure was due not to mere incapacity of the private partner but to various reasons and the French museum managed to resume its normal operation soon, without making use to the contracting out, again (Vassilakou and Maniatis, 2012).

## HERITAGE MANAGEMENT

**Cultural heritage management (CHM)** is the vocation and practice of managing cultural heritage/ resources. It is a branch of cultural resources management (CRM), although it also draws on the practices of cultural conservation, restoration, museology, archaeology, history and architecture. CHM involves the identification, interpretation, maintenance, and preservation of significant cultural sites and physical heritage assets, along with intangible aspects of heritage, such as traditional skills, cultures and languages. It is especially active, in emergency cases of in danger monuments, where the focus is often upon rescue or salvage archaeology.

CHM has its roots in the rescue archaeology and urban archaeology undertaken throughout Europe after World War II and the succeeding decades. Salvage projects were hasty attempts to identify and rescue archaeological remains before they were destroyed to make room for large public-works projects or other construction. In the early days of salvage archaeology, it was nearly unheard-of for a project to be delayed because of the presence of even the most fascinating cultural sites, so it behooved the salvage archaeologists to work as fast as possible. Although many sites were lost, much data was saved for posterity through these salvage efforts.

In more recent decades, legislation has been passed that emphasizes the identification and protection of cultural sites, especially those on public lands. The public face of CHM, and a significant source of income to support continued management of heritage, is the interpretation and presentation to the public, where it is an important aspect of tourism. Communicating with government and the public is therefore a key competence. (<http://en.wikipedia.org>)

## CONCLUSION

During the last three centuries, in Europe, there have been many radical changes in many aspects of public life: politics, ideology, economics, society, culture, science, technology. From the foundation of



public museums and the creation of terms such as national monument and restoration to public administration and heritage management, many steps have been made for the amelioration of the legislation, policies and management. Gradually there has been a turn from the public to the semi-public and collaborations between private and public parties are favored, even through public-private partnerships. Successful paradigms of cultural pppts show that it is a tool that can be used for cultural projects. It hasn't yet applied in restoration technical works, however if applied correctly, it should provide a wonderful outcome.

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## THE COMPETITIVENESS OF THE URUGUAYAN RURAL TOURISM SECTOR AND ITS POTENTIAL TO ATTRACT GERMAN TOURISTS

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### ABSTRACT

The main purpose of this article is to assess the competitiveness of Uruguayan rural tourism sector against its main competitors from Argentina and Brazil, as perceived by Uruguayan stakeholders on the supply side. The article will also evaluate the potential of Uruguay as a rural tourism destination in attracting German tourists. Two different questionnaires were administered, one to Uruguayan rural tourism stakeholders and another one to potential German tourists in Germany. The findings indicate that the main strengths of Uruguayan rural tourism offer, compared to Argentina and Brazil, are the hospitality and friendliness of local people; the natural and cultural attractions; and the country's security and safety. Main weaknesses identified were the poor management of several destination components that are key to create a successful tourism destination and poor management of the 'demand conditions' component of Dwyer and Kim's (2003) integrated model.

**Keywords:** *Competitiveness, Rural tourism, Dwyer and Kim's (2003) framework, German tourists, Uruguay*

### INTRODUCTION

Uruguay has a population of 3.3 million habitants and receives around two million tourists each year (Gallardo, 2010).

Tourism is a relatively new industry that has grown rapidly becoming one of the world's largest providers of employment (World Travel and Tourism Council, 2011). The fact that tourism products can only be consumed "in situ", means that the revenue generated by the tourism sector is kept within the tourist receiving destination (Ferreira and Estevão, 2009). However, many tourist destinations lose revenue to other countries' economies and therefore the "leakage effect" must also be taken into consideration (Mill, 2002). Tourism - if conducted in a sustainable way - can provide an alternative for local or national development by improving income levels, employment and tax revenues in the

tourist receiving country (Barbosa *et al.*, 2010). All these benefits make rural tourism an attractive option to develop rural areas in Uruguay.

Whereas in many other countries rural tourism is one of the leading touristic activities, in Uruguay its importance has been neglected for a long time. Rural tourism in Uruguay was initially originated as a business initiative from a group of Uruguayan farmers with entrepreneurial skills looking for additional sources of income (Bentancur, 2008). However, it took a lot of time, for the government to realize the potential of rural tourism (Brida *et al.*, 2008). Alternative forms of tourism are less influenced by the seasonality and would reduce the strong dependency that Uruguayan tourism has on summer tourists that opt for a beach holiday along the south-east coast of the country. A successful marketing strategy pursued by the Uruguayan government has been to develop a country's brand, under the name of 'Uruguay Natural', to promote the country's image abroad as an idyllic tourism destination with plenty of natural and 'unspoilt' surroundings.

### **Objectives**

In light of the rapid development of rural tourism during the past few years, and the Government efforts to promote and enhance the rural tourism offer in Uruguay, it becomes imperative to assess the competitiveness of the Uruguayan rural tourism sector. However, there is very limited research done on the competitiveness of Uruguay as a rural tourist destination in attracting foreign tourists (Mackinnon *et al.*, 2009). The objective of this study is to partially fill this gap by assessing how competitive Uruguayan rural tourism is and evaluating if Uruguay represents an attractive market for German tourists looking for agro tourism. The German market was chosen because it is one of the top tourist generating countries and one of the biggest spenders in international tourism (The World Tourism organization, 2010). Moreover, most tourists - from outside South America - selecting Uruguay as a tourist destination come from Germany, USA and Australia (Mintur, 2011).

## **COMPETITIVENESS**

There are several definitions of competitiveness in the tourism literature (Wilde and Cox, 2008). Scott and Lodge's (1985, p.3) definition of competitiveness refers to 'a country's ability to create, produce, distribute, and service products in international trade while earning rising returns on its resources'. Other scholars such as Newall (1992) believe that national prosperity can only be achieved by increasing the quality and quantity of goods and services that are successfully marketed to international and domestic consumers. According to Barbosa and colleagues (2010) competitiveness is the ability to survive and achieve profitable growth in competing or new markets. Other researchers refer to competitiveness as an opportunity to develop more sustainable communities (Ferreira and Estevão, 2009).

To assess the competitiveness of a tourist destination it is important to consider the principles of comparative and competitive advantage and how they interact with each other (Wilde & Cox, 2008). Natural endowments may form a source of comparative advantage; however, the way that organizations add value to these resources will give some organizations a competitive advantage over competing tourists' destinations (Crouch and Ritchie, 1999).

Competitive advantage is concerned with the most effective use of the available resources to provide consumers with more value than competitors (Barbosa *et al.*, 2010). Competitive advantage can be achieved either by differentiation or by offering a similar perceived tourist product than competitors at a lower cost (Jobber, 2006). Dwyer and Kim (2003) conclude from a review of existing literature that competitiveness is associated with three mayor groups of thoughts: the comparative advantage and/or price competitiveness perspective; the strategy and management perspective and the historical and socio-cultural perspective.

There are also several frameworks developed with the purpose of looking at destination competitiveness from the tourism industry perspective (Ferreira and Estevão, 2009). Some of the most relevant ones are briefly discussed below.

As a response to the continuous development of different types of tourism and changes in tourism demand, Crouch and Ritchie (1999) developed a 'Conceptual Model of Destination Competitiveness' to analyse the competitiveness of tourism destinations. The model is based on the theories of comparative advantage (Smith, 1776; Ricardo, 1817) as well as on two of the most popular strategic models 'Porter's Five Forces' and 'Porter's Diamond' (Valdez *et al.*, 2010). It focuses on long-term economic prosperity and incorporates economic, ecologic, social, cultural and political aspects of the destination country (Ritchie and Crouch, 2003). Crouch and Ritchie's model is considered one of the most appropriate frameworks to understand the interplay and relationship between the various factors influencing the tourism competitiveness (Armenski *et al.*, 2007).

Dwyer and Kim (2003) and Dwyer *et al.*, (2004) also developed a holistic model to help identifying the underlying variables of a country's tourism competitiveness. Dwyer and Kim's (2003) 'Integrated Model'- as shown in Figure 1 - aims to improve Crouch and Ritchie's (1999) model by developing a framework that reflects a more realistic relationship between the major elements of destination competitiveness.

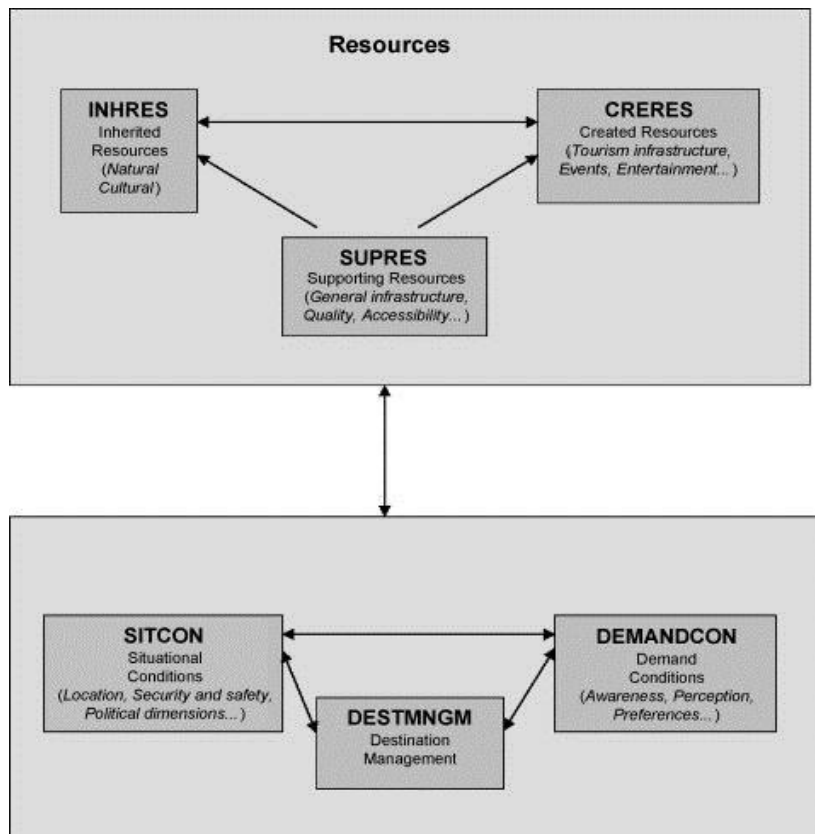


Fig. 1. Dwyer and Kim's Integrated Model of Destination Competitiveness

Dwyer and Kim's (2003) integrated model of tourist destination competitiveness was empirically tested in Australia, Korea and Slovenia (Gomezelj and Mihalic, 2008). The authors of these studies suggested that further research should be conducted to identify the relative importance of the different determinants of competitiveness within the context of specific destinations and specific visitor market segments (Gomezelj and Mihalic, 2008) and the importance of different elements of destination competitiveness in increasing the number of tourists from different market segments (Dwyer and Kim, 2003). By unveiling the determinants that define the competitive position of rural tourism in Uruguay and by understanding the customer profile of potential German rural tourists this paper has addressed some of these gaps.

The model to be employed in this research must be capable of explaining the success of tourism destinations in attracting international tourists. The general conceptual model of destination competitiveness developed by Crouch and Ritchie (1999) and further refined (Ritchie and Crouch, 2003) is the model that best meets these requirements. This model was selected for several reasons. First, this model has been widely reported in the tourism literature and has been the basis for a large number of other research studies into destination competitiveness. Second, the model is based on at least eight years of research and has been refined and developed over an extensive period of time. Third, the model has a holistic approach that makes it suitable to be applied to any destination and tourism market.

## METHODS

A positivist, deductive research approach was deemed the most appropriate approach to address the objectives of this research. The application of a well-known framework to the Uruguayan rural tourism sector has helped to identify the competitive position of Uruguayan firms within the selected industry. Two structured questionnaires were developed to collect the data, one administered to Uruguayan key rural tourism stakeholders, and another one to potential German tourists. A total of 185 questionnaires were completed. To establish validity, questionnaires were scrutinized by a panel of experts in the field. The first questionnaire was administered to 76 Uruguayan rural tourism stakeholders with knowledge or experience relevant to the topic. The sample size is the suggested to get results that are representative (with 95% confidence level) of the universe of Uruguayan rural tourism farms.

Participants were required to make judgements regarding the importance of the main factors and sub-factors detailed in the Crouch and Ritchie model of destination competitiveness. Respondents were asked to rank different Uruguayan competitiveness parameters against a five-point Likert scale, comparing Uruguay against its main competing tourist's destinations: Argentina and Brazil. The collected data was transferred to GenStat for statistical analysis.

The criteria used to determine the sampling frame was based on: existence of a homepage, website quality, total product offer, activities in the surrounding area, price, location and proximity to main roads. The chosen tourists' farms are distributed all over the country and therefore it could be said that the results are a fair representation of the rural tourist industry in Uruguay.

The second questionnaire was administered to a convenience sample of 109 potential German tourists. The study used the right sample size in order to get results that are representative of potential tourists attending "The Equitana fair" with a 95% confidence level. This questionnaire had two main parts. The first part aimed at revealing the attractiveness of Uruguay as a rural destination and the second part looked at the general characteristics of German tourists. The Equitana fair event, held in Essen Germany was recommended by travel agencies - supplying services to people interested in rural tourism - as the most suitable event to collect data from potential German tourists interested in rural tourism. Respondents come from different regions of Germany as depicted in figure 2.

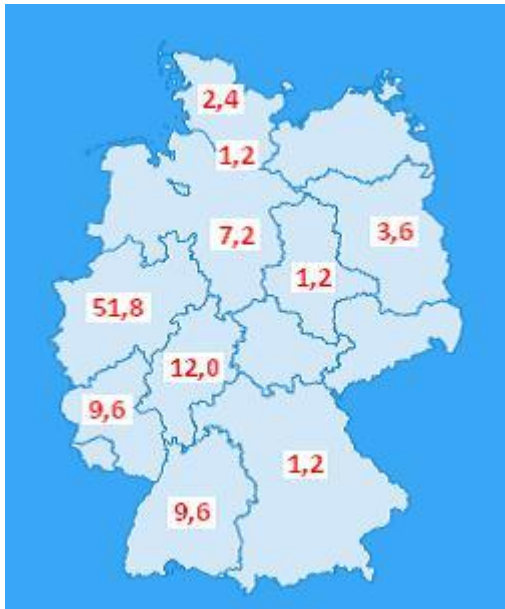


Fig. 2. Geographic origin of German participants by state (in percentage)

## RESULTS

### I) Competitiveness of the Uruguayan Rural Tourism sector

In this section, the data collected from questionnaire one is presented against the main six competitiveness determinants suggested by Dwyer and Kim (2003).

		Mean	SD
Natural Endowed Resources	Attractiveness of Climate to German tourists	4,00	0,93
	Cleanness/Sanitation	3,80	0,41
	Marvels of Nature	4,20	0,77
	Flora and Fauna	4,40	0,61
	Unspoiled Nature	4,70	0,45
	National Parks	4,10	0,70
	<b>Overall</b>	<b>4,20</b>	<b>0,65</b>
Cultural/ Heritage Endowed Resources	Historic Sites, Heritage and Museums	3,71	0,80
	Artistic and architectural Features	3,43	0,49
	Traditional Arts	3,89	0,77
	Variety and Quality of Cuisine	3,93	0,59
	<b>Overall</b>	<b>3,74</b>	<b>0,66</b>
<b>Endowed Resources</b>		<b>3,95</b>	<b>0,66</b>
Tourism Infrastructure	Airport Efficiency/Quality	<b>4</b>	<b>0,85</b>
	Tourist Guidance and Information on Rural Tourism Attractions	<b>3,25</b>	<b>0,73</b>
	Local Tourism Transportation Efficiency/Quality	<b>3,43</b>	<b>0,98</b>
	Visitor Accessibility to Natural Areas	<b>3,64</b>	<b>0,89</b>



	Food Service Facilities	3,93	0,7
	Overall	3,66	0,83
Range of Activities	Waster based	3,43	0,82
	Nature based	4	0,65
	Adventure Activities	3,43	0,82
	Recreational Activities	3,86	0,64
	Sports Facilities	3,71	0,8
	Overall	3,69	0,75
Shopping	Diversity of Shopping Experience	3,79	0,86
	Quality and Variety of Shopping Items	3,64	1,11
	Value for Money in Shopping Items	3,29	0,88
	Overall	3,57	0,95
Entertainment	Entertainment Quality/Quantity	3,71	0,72
	Nightlife	3,64	0,83
	Overall	3,68	0,76
Special Events		3,86	0,76
<b>Created Resources</b>		<b>3,69</b>	<b>0,81</b>
General Infrastructure	Accessibility of Destination	3,50	0,73
	Health/medical Facilities to serve Tourist	3,43	1,05
	Financial Institutions/Currency Exchange Facilities	3,86	1,06
	Telecommunication Systems for Tourists	4,21	0,67
	Security/Safety for Visitors	4,57	0,62
	Electricity Supply in Rural Areas	4,00	0,85
	Overall	3,93	0,83
Quality of Service	Quality of Rural Tourism Services	3,93	0,59
	Monitoring of Visitor Satisfaction	3,69	0,72
	Service Quality and Visitor Satisfaction	3,77	0,58
	Training Programmes and Service Quality	3,15	0,36
	Overall	3,64	0,56
Hospitality	Hospitality of Residents towards Tourists	4,64	0,61
	Quality in Performing Rural Tourism Services	3,93	0,59
	Communication/Trust: Tourists - Residents	4,43	0,62
	Overall	4,33	0,61
<b>Supporting Factors</b>		<b>3,97</b>	<b>0,66</b>
Destination Marketing Management	NTO Reputation	4,00	0,60
	Co-operation between Private and Public Sector	3,08	1,10
	Overall Destination Image	4,07	0,59
	Development of effective Destination Branding	3,85	0,77
	Promotional Activities of NTO's in Germany	2,77	0,70
	Fit between Product Preferences	3,33	1,03

	Overall	3,52	0,80
Destination policy, planning, development	Vision for Rural Tourism Development	3,46	0,61
	Vision reflecting Tourist Values	4,08	0,73
	Vision reflecting Resident Values	3,85	0,66
	Vision reflecting Stakeholder Values	3,75	0,60
	Existence of clear Policies (Rural Tourism)	3,08	1,00
	Development/Promotion of Rural Tourism Products	3,29	0,88
	Development integrated into overall development	3,36	0,61
	Overall	3,55	0,73
Human Resource Management	Commitment to Tourism/Hospitality Education	3,00	0,55
	Educational Structure/Profile of Employees	3,14	0,64
	Adequate Tourism Education Programmes	3,29	0,59
	Training responsive to Visitor Needs	3,21	0,41
	Overall	3,16	0,55
Environmental Management	Sustainable Tourism Development	3,64	0,72
	Environmental and Heritage Protection	3,85	0,77
	Overall	3,75	0,77
<b>Destination Management</b>		<b>3,50</b>	<b>0,66</b>
Competitive (micro) Environment	Domestic Business Environment	3,29	1,10
	Access to Venture Capital	3,00	0,76
	Level of Co-operation (Rural Establishments)	3,67	0,62
	Use of IT by Firms	4,00	0,68
	Use of e-Commerce	3,92	0,73
	Overall	3,58	0,78
Competitive (macro) Environment	German Business Environment	4,42	0,49
	Political Stability	4,25	0,67
	Quality of Research Input	3,29	0,59
	Extent of Foreign Investment	3,50	0,91
	Overall	3,86	0,67
Price Competitiveness	Value for Money in Destination Tourism Experience	3,64	0,72
	Value for Money in Accommodation	3,57	0,82
	Overall	3,61	0,77
<b>Situational Conditions</b>		<b>3,68</b>	<b>0,74</b>
Demand Conditions	International Awareness of Destination	3,15	0,66
	International Awareness of Destination Products	3,15	0,66
	Overall Situation for Rural Tourism in Uruguay	3,08	0,73
	Overall	3,12	0,68
<b>Demand Factors</b>		<b>3,12</b>	<b>0,68</b>

Table 1 Competitiveness determinants

### ***Inherited resources***

Results from this study indicate that Uruguay as a rural tourism destination is well positioned compared to its South American competitors (overall grade 3.95 out of 5) in most of the attributes within this group (Table 1). Whereas *natural inherited resources* are graded with an overall mean score of 4.20, *culture and heritage* only attained an overall mean score of 3.74. The highest rating in this group of indicators was assigned to the *country's unspoiled nature* (4.70) whereas the lowest scored was assigned to the *level of cleanness and sanitation* with only 3.80 points. For these two factors a low standard deviation (0.41/0.45) indicates a high level of agreement between the respondents.

### ***Created resources***

There was much agreement among respondents about a slight superiority of Uruguay's created resources compared to its counter rivals from Argentina and Brazil (Table 1). Results indicate that Uruguay's main strengths lie in its *airport efficiency and quality* as well as its *nature based activities*.

Within this group of indicators, *recreational activities* such as special events and festivals that take place in Uruguay are rated above average, with a mean score of 3.86. This suggests that Uruguay is more competitive on this area than the competitor destinations. The standard deviation reveals that most participants share this opinion. Although created resources look promising for the future of Uruguayan rural tourism sector, standard deviation divergences need to be considered and therefore results should be interpreted with appropriate caution.

### ***Supporting factors***

Uruguay is considered to be more competitive than its direct rivals in most of the supporting factors, with most attributes rated higher than three. The rating of supporting factors indicates that the main competitive advantage of Uruguay as a rural tourist destination lies in the *hospitality from residents towards tourists*, which contributes to a positive experience while staying in Uruguayan farms. Supporting factors together with inherited resources have the highest average mean scores of 3.97 and 3.95 respectively, suggesting that these are the two main determinants of Uruguay's favourable competitive situation. Whilst some supporting factors are perceived as good or very good compared to competing countries, the *quality and quantity of training programs* to enhance service quality has a low rating, with a mean score of 3.15.

### ***Destination management***

The results indicate that most respondents agree on the perception (SD: 0.55) that *human resource management* is one of the key factors limiting a further development of the selected industry. Results from the other groups of indicators within destination management are rated higher than human resource management. However, within the group of indicators for "destination policy, planning and development", the *existence of clear policies in rural tourism* scored particularly low. The indicator with

the lowest rating within this dimension is *the promotional activities of national tourist organisations in Germany*, with a rating of 2.77, which shows that is the only indicator where Uruguay is clearly perceived to be less competitive than its direct rivals.

#### ***Situational conditions***

Factors within this determinant can form the basis of competitive advantage in attracting tourist to Uruguayan rural farms. The overall ranking is positive but particularly, the *German business environment* factor has been rated very high by the majority of respondents. As shown in table one, *political stability* is another area where Uruguay has a clear competitive advantage against Argentina and Brazil, with a rating value of 4.25. However, this study has also identified the following areas where Uruguay is perceived to be less competitive: *quality of research input; access to venture capital; domestic business environment; and foreign investment*.

#### ***Demand Conditions***

Dwyer and Kim's (2003) argue that demand conditions are influenced by the *international awareness of the destination and its products*. The findings from this research suggest that the international awareness of Uruguay as a key rural tourist destination is similar to those of its direct competitors.

## **PROFILE OF POTENTIAL GERMAN TOURIST**

This section will present the findings from the questionnaire carried out to German respondents at the Equitana fair.

#### ***General characterization of participants***

Results indicate that 70% of participants travel with their partners. Within this group, 33% also travel with kids. Among the remaining participants, 19% tend to travel with friends and 11% travel alone. Most participants (65.06%) stated that relaxation and leisure was their prime motivation for travelling followed by sport and adventure (24.01%), culture (8.43%) and lastly social reasons (2.40%). The data collected indicates that, on average, a German tourist would spend 1,000 euros per week. Most respondents indicated that they tend to plan their holidays at least half a year in advance.

In spite of the lack of knowledge about Uruguay - as a rural tourist destination - 71.08% of respondents would consider travelling to Uruguay on a holiday. It is important to note that 10 participants had already been to Uruguay and all of them would like to return to Uruguay in the near future. Among those who would not consider Uruguay as a potential destination, the 13 hours flight was identified as the main factor that would discourage these potential tourists from visiting Uruguay.

Results from this study show that the travel patterns of those Germans willing to select Uruguay as a rural destination can be broken down as follows: 50.85% travel more than once a year, 35.60% travel

once a year, 3.39% travel every other year and 10.17% travel less frequently. Most participants (69%) who considered Uruguay as a potential rural tourist destination would like to stay in the country for about three weeks.

Participants declared that they gather information about travel destinations from the internet (26.05%), friends and relatives (22.33%), tourism catalogues (13.03%), newspaper (11.16%), television (10.70%), tourist agencies (8.37%), magazines (5.12%) and newsletter (3.26%). When asked about their preferred way of receiving information the ranking was clear: 39.81% opted for information sent by email, 29.13% for information sent by post, 25.24% are happy to search for information on internet and only 5.82% like to receive newsletters.

Most of the respondents (95%) who expressed their desire to travel to Uruguay were very interested in participating in some of the activities offered by Uruguayan touristic farms. Table two below depicts the ranking of participants' activity preferences. Most participants (91.07%) were very enthusiastic about the idea of participating in several days trail rides.

Activity	Rank	Level of Participation
Riding	1	98,21
Cattle Drive	2	87,5
Branding	3	71,43
Walks	3	71,43
Biking	4	55,36
Drilling/Harvesting	5	42,86
Polo	5	42,86
Fishing	6	17,86

Table 2 Participants' activity preferences

## CONCLUSIONS

Overall, compared to its main regional competing destinations, Uruguay does not possess a very strong comparative position. However, tourism stakeholders on the supply side rated Uruguay's *natural endowed resources* and *hospitality* as the most competitive indicators. The authors believe that Uruguayan respondents have underestimated the marvels of nature that attract international tourists to competing destinations such as Argentina or Brazil. To overcome the lack of marvels of nature Uruguay should concentrate on adding value through offering high standard accommodation, excellent hospitality and service, and excellent marketing.

The findings suggest that Uruguay will have to create and convey the right message focussing on the range of activities offered in rural farms and their surrounding areas. The high level of correspondence between the profile of German tourists and the characterization of nature-based and

adventure tourists has revealed the significant potential of Uruguay as a rural tourism destination for Germans looking for nature and soft-adventure tourism.

The high *level of security* and the *peacefulness* that characterise Uruguay's rural areas are highlighted in the literature and are accredited with Uruguay's high fidelity level (Cotelo, 2011). This high fidelity level has been confirmed with the help of the data collected from German participants. Therefore, tourism stakeholders should capitalize on the excellent security levels of the country.

This study also recommends improving the indicators that are responsible for the relatively poor rating of destination management. For instance, it is necessary to establish a good educational system especially for participants on the supply side of rural tourism. This study has also identified opportunities where the public and private sector can work together to improve the competitiveness of Uruguayan rural tourism. The areas on which both sectors should focus on are: promotional activities in Germany, the development of clear rural tourism policies and a better integration of the sector into the country's development strategies.

The rural tourism sector has not benefited from any tax reductions that traditional sectors of tourism in Uruguay have enjoyed in the past. Considering the potential of rural tourism to improve the economic situation of rural areas the government should consider implementing tax incentives to help rural farms to improve their competitive advantage. If rural farms attract more foreign tourists it could have 'spill over' benefits for many people in surrounding areas. Tax benefits would also help the rural tourism sector to offer a more competitive product which will help to attract price-sensitive tourists such as Germans.

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## CONSUMERS' RESEARCH FOR AN INNOVATIVE BUSINESS NETWORKING MODEL IN GREEK WOOD & FURNITURE SECTORS

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### ABSTRACT

The present research is mapping opinions regarding the consumers' correspondence to the development of a pilot implementation of a business networking model with the use of IT in Greek wood and furniture sectors. The participating enterprises are aiming to their cross - firm cooperation related to the procurement of materials and intermediate products and outsourcing. Based on specially constructed questionnaire, the researchers addressed to 66 consumers of wood and furniture products. Findings have shown that, the potentiality of developing the proposed dynamic network, could constitute an innovative proposition which finds resonance to the consumers of wood and furniture products, based to the characteristic of real time purchases. The expected benefits of participating in such a network, could constitute a fundamental competitive advantage of the network's enterprises. This fact is deemed to be of great importance for wood and furniture sectors, especially during the present economic downturn. Furthermore, supporting strategies should be developed. It seems that wood and furniture enterprises have not yet managed to develop trustworthy relationships among them and to spot the opportunities they have in developing cooperative activities using high technology, acquiring a fundamental competitive advantage. In order for this target to be achieved, they should focus to specific cooperative activities and to the exchange of entrepreneurial practices, without this strategic choice be in confrontation to their independent operation.

**Keywords:** *business network, business model, innovation, value creation, wood & furniture enterprises, e-Furniture, consumers' research.*

### INTRODUCTION

The present market study, has been implemented under the context of the research project "*Dynamic networking of furniture manufacturing enterprises with the use of intelligent software agents (e - Furniture)*", by the Department of Wood and Furniture Design & Technology - TEI of Thessaly. The project is funded by the operational program "*Competitiveness & Entrepreneurship*" of the National Strategic



Reference Framework 2007-2013 (NSRF 2007 - 2013), action "*Supporting of SME's clusters for R&D activities*". The project is dealing with the implementation of industrial research aiming to the introduction of the related technology and experimental development of a prototype, intelligent agent based, IT system for supporting "smart" networking of manufacturing and trading furniture and wooden products enterprises. The participating enterprises are aiming to their cross - firm cooperation related to the procurement of materials and intermediate products and outsourcing. The use of the specific system is expected to lead to the reduction of procurements' and offering services' cost, facilitation of outsourcing for the cooperative firms and integration of the products' and services gamut, having as a consequence the augmentation of customers' satisfaction and firms' competitiveness.

#### *Motivation*

Traditionally, competition of enterprises was a static meaning, with basic production factors to be responsible for the success or failure of a firm. But not any longer. Modern competition is unpredictable and extremely dynamic. The industrial and entrepreneurial competitive advantage is changing rapidly, because of the development of new innovative technology, shortness of products' life cycle and the introduction of new global competitors in the sector, such as China, Russia and India. It constitutes a reality that Greek furniture enterprises are facing during the last period, an unprecedented uncertainty and significant problems, as a result of the Greek and European economic downturn and recession, but also because of specific problems and stiffness of the sector in the country (Papadopoulos *et al.*, 2012; 2009). Thus, strategic differentiation through the adoption of new business models based on innovation and extroversion, is more than ever out of great importance for the Greek wood and furniture enterprises. In that way they will be able to become more competitive and secure their viability.

## **LITERATURE REVIEW**

During the last years there is a significant number of research highlighting the contribution of entrepreneurial strategy in business performance (Demeter, 2003). This tendency, includes research that brings forward the relation between business performance and manufacturing and other technology that is been used (Beaumont and Schroeder, 1997; Das and Narasimhan, 2001), quality management techniques (in relation to business personnel and to products/elements of enterprises) (Dow *et al.*, 1999) and the sum of the entrepreneurial strategy (Robb and Xie, 2005; Li, 2000). On the contrary, marketing research and its applications, highlights the central role of the products and services value for the consumer or, the total evaluation by the consumers regarding the usability or value of products in purchasing decision (Gao *et al.*, 2005; Woodruff, 1997; Anderson, 1995). The

capability in providing products with high added value for the consumers is considered as a fundamental element for enhancing competitiveness (Lindgreen and Fynstra, 2005; Sweeney and Soutar, 2001). Furthermore, modern consumer is more than ever oriented towards the direction of product's value, giving simultaneously more importance to the best possible relation of quality/price. They tend to be also, more well informed and demanding (Peter and Olson, 2002; Blackwell *et al.*, 2001).

Under this context, enterprises are almost obligated to adjust their products, processes and the way they approach their customers, following a model through which they could provide the higher possible value, based to knowledge, innovation, strategic differentiation and the understanding of consumers' needs. Consumers' behavior could constitute a tool for creating and developing successful marketing strategies with multiple benefits for the enterprises (Schiffman and Kanuk, 2000; Assael, 1998). For instance, better understanding of customers' needs presupposes a plainly more rational use of business sources.

Value creation for enterprises and for consumers' constitutes the core of every successful business model (Zott and Amit, 2010; Morris *et al.*, 2005; Melville *et al.*, 2004; Chesbrough and Rosenbloom, 2002). It could also constitute one of the most fundamental elements behind the success of a product, service or technology in the market. In traditional business models the proposed value towards the consumers is mainly based on meanings such as quality, design, functionality, low price or cost. Furthermore, traditional business models are aiming to bring forth ways in selling products/services to the consumers (Osterwalder *et al.*, 2010). New business models presupposes the creation of new values and consumers awareness such in tacit and explicit values (Tukker, 2004), stressing these kind of customers' needs, offering to the enterprises the competitive advantage, creating new opportunities in the market based on inspirational innovations.

Greek furniture production and trading are facing a continuous recession, because of the economic crisis, which has as result a significant number of sector's enterprises to be at stagnation stage for a long period or to have stopped their operation (Papadopoulos *et al.*, 2012; 2009). Besides these very negative indexes for the furniture sector, a number of inhibitory factors contributes towards this unpleasant situation such as, high labor costs, the lack of raw materials and of specialized personnel, the small size of the Greek enterprises, the irrational organization of firms, the lack of new production technologies and the deficient infrastructures in the sector (Papadopoulos, 2006).

Nevertheless, according to a recent study in Greece (Trigkas *et al.*, 2012), the majority of the innovating wood and furniture enterprises are adopting existing production and distribution processes moving towards marginal improvements. Thus, we could argue that there is a growing need for the development of innovative promotion and distribution methods for the Greek wood and furniture

industries. On the contrary, according to the same research, it seems that Greek wood and furniture enterprises have not been able yet, to develop mutual relations and to several other organizations, based on trust, in order to effectively move towards the exchange of knowhow and best practices flows. As a consequence, the improvement of the cooperation between the sector's enterprises is deemed of high importance, since the enhancement of cross firms bounds and of cooperative activities, along with constant investments in modern technology and the exchange of best entrepreneurial practices, could enhance the sector's competitiveness (Trigkas *et al.*, 2012), without this strategic choice to be in confrontation with the independent entrepreneurial activity of firms. .

According to another research of Papadopoulos *et al.*, (2012), the bigger Greek furniture enterprises are preferring to invest in processes reducing the production costs in order to confront the existing competition. On the contrary, SMEs' choose strategic differentiation applying specific initiatives regarding their business model, since they could not become competitive regarding the production cost. Finally, despite the economic crisis and the dramatic consequences in families' income in Greece, a recent study (Papadopoulos *et al.*, 2014) has shown that Greek consumers are willing to pay extra for the added value that a furniture product may offer, based on technological and ecological innovations, satisfying specific needs. The same study concludes to "*Greek furniture enterprises will have to focus to differentiation from the competition, innovating through the production and promotion of furniture products of high added value, a fact that could ensure a significant fraction of the internal market and boost extroversion (exports)*".

## GOAL AND SCOPE DEFINITION

The present research will constitute a useful guide for furniture enterprises, since it is based to a pilot implementation of business networking model with the use of IT, a model that is introduced for the first time in Greece. The present market study is mapping opinions regarding the consumers' correspondence to the development of such a network using sophisticated technology, which will aim to their service in real time according to their preferences and needs in furniture products, satisfying simultaneously the firm's needs in materials etc. The expected outcome has mainly to do with the clarification of the opinions of the target group and potential stakeholders regarding the design, development and operation of a dynamic business network, in order to lead to required decision making regarding the forthcoming steps of the research on the network's characteristics and operational elements.

## RESEARCH METHOD

The primary data collection and elaboration followed the methodology of gathering, processing and editing according to the basic principles of marketing research (Gordon and Langmaid, 1988; Tull and Hawkins, 1990; Doyle, 1998; Aaker et al. 2004; Siomkos and Mavros 2008). Questionnaires were specially constructed for the purpose of the study with short and precise questions. The research was conducted by skilled researchers who addressed directly the entrepreneurs or executive members of the firms by personal face-to-face interviews.

The questionnaire included 13 questions on issues such as the cooperation and trust magnitude of consumers towards wood and furniture enterprises, their general attitude regarding the development and implementation of such a business network, product's characteristics, services, benefits and services, as structural elements of the network's operation according to their needs and preferences in real time. The final group of questions had to do with the profile of the participants in the study in order to detect the specific characteristics of the potential users of "smart networks" in wood and furniture products. The research took place during the period January 2013 - February 2014 using random sampling of 250 consumers all over Greece. Finally, a 26,4% of the sample corresponded translating to a number of 66 consumers. The questionnaire had been uploaded to <http://inflab.kard.teilar.gr/e-Furniture/index.php/el/surveysgr?id=95> and the participants were notified by e - mails. A content validity of the questionnaire was used before its launch to the internet based on diligent discussions with wood and furniture enterprises and scientific experts in the field and literature review. A pilot questionnaire was addressed to five consumers and from this pre - sampling we manage to improve several parts of the questionnaire, improving its quality and shaping the final questionnaire (Dillman, 2000).

Data were edited and processed using SPSSWIN ver 17.0 and all the related tests of *frequencies*, *descriptives* and *cluster analysis* were made (Howitt and Cramer, 2003; Siomkos and Vasilikopoulou, 2005; Norusis, 2007), in order to detect the groups of consumers based to specific characteristics of their profile and the integration range of the network's attributes - operations.

## RESULTS AND DISCUSSION

The results of the study are considered to be of great importance constituting a core element of the entire e-Furniture research project, under the context of the direct consumers' service according to their needs and preferences, but also under the prism of targeted and quick sales for the enterprises, offering a high added value service to their customers.

Regarding the question, which would be the initial impression of the consumers in case that a firm participated in a cooperative network giving them the opportunity to buy from distance,

automatically and at a real time, its products, the majority of the participants (42,6%) has stated that they would have a positive attitude against this potentiality, while the 37% would be very positive, as it is presented to the next Table 1. These results are considered to be quite encouraging, since the potentiality of developing the proposed dynamic network, could constitute an innovative proposition which finds resonance to the consumers of wood and furniture products, based to the characteristic of real time purchases.

Respond	Percentage %	N
Positive	42.6%	23
Very positive	37.0%	20
Skeptical	13.0%	7
Neutral	7.4%	4

Table 1. *Initial consumers' attitude towards networking enterprises for real time purchases*

The above mentioned opinion is also based to the expected benefits for the consumers themselves (Figure 1), which have stated at a percentage of 60,5% that they could achieve time saving, 39,5% completed solutions according to their needs and preferences, 37,2% better prices, 16,3% better design and guarantees and 11,3% less stress during products' selection and purchase. The specific expected benefits, according always to the participants' opinion, could constitute fundamental competitive advantage of the network's enterprises. This fact is deemed to be of great importance for wood and furniture sectors, especially during the present economic downturn, which are facing a vertical decline to their financial and production amounts, in order to boost their entrepreneurial activity via "smart", affordable ways of selling and provision of completed solutions. These three competitive advantages constitute the basis of the competition mainly by multinational companies operating in Greece (Spanos *et al.*, 2004; Porter, 1986).



Figure 1. *Expected benefits for the consumers by a potential dynamic networking of wood and furniture enterprises*

However, the 13% of the consumers that had a skeptic attitude against the potentiality of such a network and making purchases through this (Table 1), pose as basic hesitations (Figure 2): the willingness to be at personal contact with several enterprises in order to judge themselves the reliability and trust they could have towards them (62%), as well as the hesitation that this method of selling will not offer them the best possible quality, at a percentage of 25%, while a 13% poses several other reasons. Thus, it is of great importance the participating enterprises in such a network to secure the mutual trust of the consumers, providing them quality products and solutions. Thoughtfully, this effort should be supported by several supplementary strategies such as quality certifications, implementation of quality management systems, feedback processes, after sales service, etc. in order to bend as much it is possible whichever hesitation may exist towards this kind of a cooperative business model.

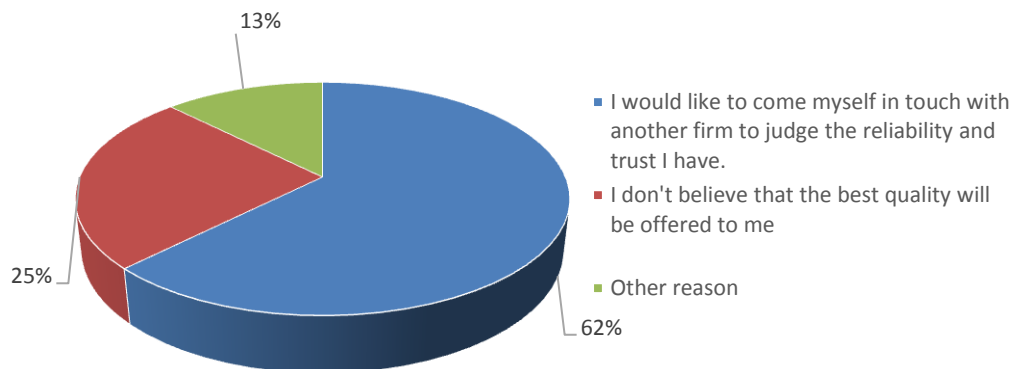


Figure 2. *Basic hesitations by the consumers regarding the potential participation of the enterprises in a dynamic cooperative network*

The characteristics to which the consumers give special attention before they move towards the purchase of a furniture product and which will have to constitute a structural information regarding the capabilities of the developing network, are presented in the next Figure 3. Results show that the capability of integrated services to the consumers should exist, that ensure products' quality, low prices, design and guarantees at 31,4%, 31,1%, 21,1% and 14% respectively.

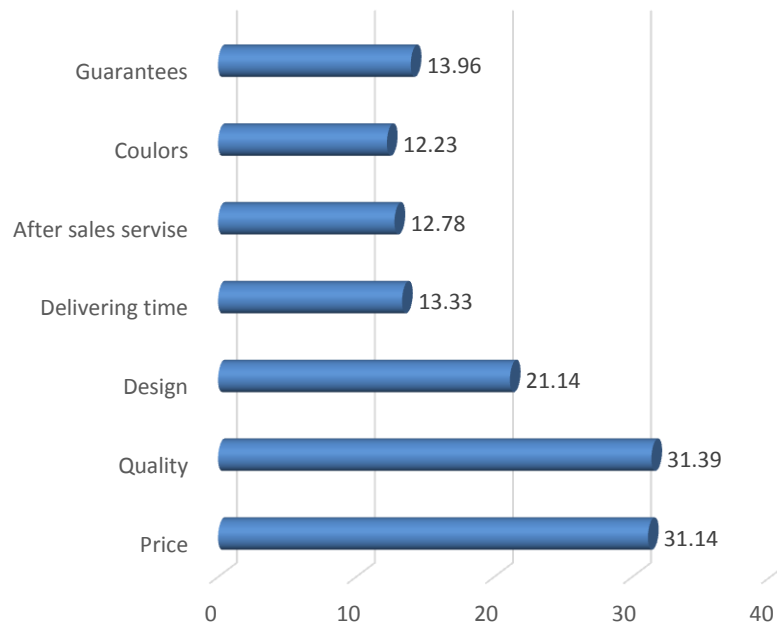


Figure 3. *Volume (%) of significance of wood and furniture products purchasing characteristics*

Simultaneously, the presentation of furniture products, along with the capability of the combination of their characteristics and selling methods according to the consumers' preferences in real time, should be focused in attributes such as (Table 2): low price (33,3% of the responses considers it as quite significant and a 27,8% very significant), prototype and functional design (29,6% and 38,9% respectively), the offering guarantees (31,5% and 37% respectively), as long as after sales service at a percentage of 24,1% and 31,4% respectively, according to the significance volume for the consumers before they move towards the purchase of products. Thus, the developing network will have to embed to its operation these attributes, which fundamentally, are representing the expected benefits as competitive advantages of the network.

ATTRIBUTES	NOT SIGNIFICANT	LOW SIGNIFICANCE	SIGNIFICANT	QUITE SIGNIFICANT	VERY SIGNIFICANT
Brand name	18,52%	16,67%	35,19%	12,96%	7,41%
Low price	5,56%	7,41%	22,22%	<b>33,33%</b>	<b>27,78%</b>
Payments of no interest	22,22%	22,22%	16,67%	5,56%	11,11%
Quality	1,85%	3,70%	5,56%	11,11%	22,22%
Guarantees	1,85%	7,41%	12,96%	<b>31,48%</b>	<b>37,04%</b>
Prototype and functional design	1,85%	5,56%	12,96%	<b>29,63%</b>	<b>38,89%</b>
Colours	3,70%	5,56%	25,93%	29,63%	18,52%
After sales service	5,56%	7,41%	22,22%	24,07%	<b>31,48%</b>

Existence of a shop near my residence	11,11%	12,96%	31,48%	16,67%	9,26%
Other	1,85%	3,70%	1,85%	1,85%	3,70%

Table 2. *Significance of wood and furniture products' attributes during the purchasing process*

Finally, some other attributes that the project's network could embed, as a result of the selling methods' improvement, products distribution, after sales service and the building of a trustworthy environment between customers and enterprises, have to do mainly with customers service attributes (77,5%), selling according the customer's preferences (70%), low pricing (52,5%) and the avoidance of mistakes in ordering (30%). Non observance of these attributes constitute one of the major reasons for interrupting cooperation with a firm, according to the responds of the participants as they are presented in next Figure 4.

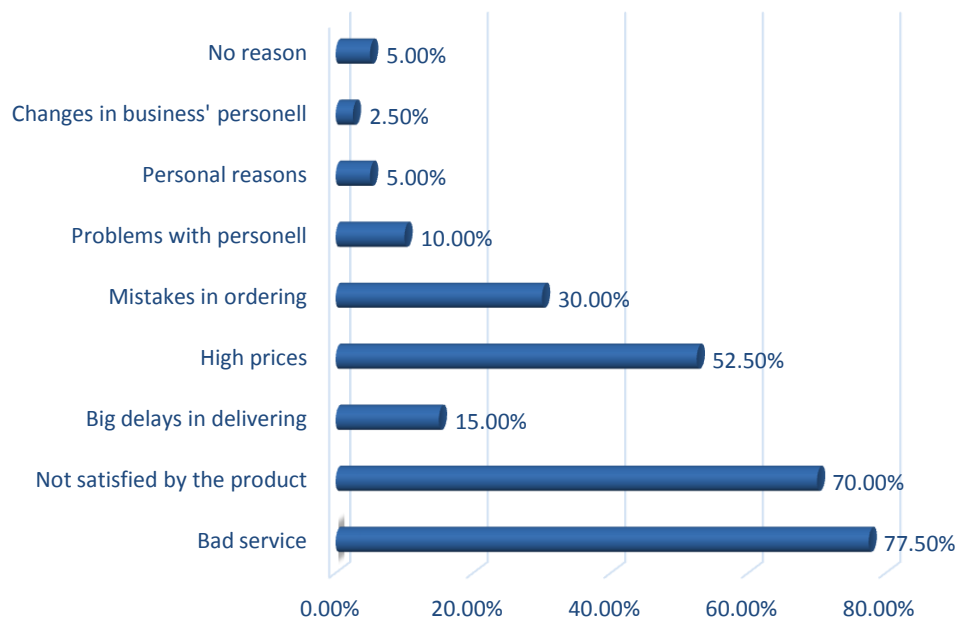


Figure 4. *Basic reasons for interrupting cooperation with wood and furniture enterprises*

The consumers profile that had participated to the present market research have shown that (Table 3), the majority (57,5%) were singles of 21 - 30 years old. A percentage of 32,5% states private employees with freelancers and students to follow (22,5% and 25% respectively). The average net monthly income is in majority (45%) below 1.000€ with these having income between 1.000€ - 2.000€ (30%) to follow. Their education has to do at a percentage of 67,5% with higher education, with post graduate studies to follow at a percentage of 25% of the responds. Regarding the kind of their residence, the majority (47%), has stated that lives in a single residence below 100 square meters with the residences of total surface between 100 – 150 square meters to follow (49% and 35% of the responds respectively).



Age	Percentage	Marital status	Percentage
< 20	0,00%	Single	57,50%
21-30	57,50%	Married	17,50%
31-40	20,00%	With 1-2 children	22,50%
41-50	20,00%	With 3 children and more	2,50%
51-60	2,50%	Divorced	2,50%
> 60	0,00%	With my parents	17,50%
Profession	Percentage	Education	Percentage
Public servant	7,50%	Elementary	2,50%
Private employee	32,50%	Secondary	5,00%
Retired	0,00%	Higher	67,50%
Freelancer	22,50%	Post graduate studies	25,00%
Student	25,00%		
Other	12,50%		
Average net family income	Percentage		
< 1.000 €	45,00%		
1.000-2.000 €	30,00%		
2.000 – 3.000 €	15,00%		
3.000 – 5.000 €	2,50%		
> 5.000 €	7,50%		

Table 3. *Basic demographic characteristics of the participants' profile*

## CONCLUSIONS - PROPOSALS

Modern consumer of wood and furniture products, is more than ever, oriented towards the value of products, focusing to the best possible relation of quality and price. Especially during the present economic downturn having limited sources for purchasing, he gives special significance to market research for wood and furniture products with high added value for him (value for money).

Thus, it is of great importance the study regarding the basic attributes, functions and services that the project's developing business dynamic network could integrate under the context of the direct customers' service based to their needs and preferences, along with the focused and quick selling procedure for the enterprises, offering a high standard of customers' service. The potentiality in developing such a dynamic network could constitute an innovative proposal finding resonance in wood and furniture consumers based to the characteristic of purchasing in real time. The majority of the participants in the present research has stated that they have a positive till very positive attitude against this potentiality.

Results show that there must be the capability of integrated customers' services, which could ensure products' quality, low prices, design, and guarantees. Simultaneously, the presentation of the products along with the capability for combination of characteristics and real time sells according to customers' preferences, should focus in attributes such as: low prices, prototype and functional design, guarantees and after sales services. Regarding the expected benefits for the customers themselves, it is recorded the time saving, the opportunity for perceiving of integrated services, better prices, better design, bigger guarantees and less stress during the choice of products. The specific expected benefits, according always to the opinion of the participant consumers, could constitute fundamental competitive advantages of the network's enterprises. This fact, is of great importance during the present economic situation for the sectors of wood and furniture, which face a vertical decline to their financial and production magnitudes and wishes to boost their enterprises through "smart" entrepreneurial ways for selling products and integrated services, reachable for the consumers.

Furthermore, this effort should be supported by supplementary strategies such as: quality certifications, implementation of quality management systems, feedback processes, after sales service, etc. in order to bend existing skepticism that may occur against to such a cooperative business model. Finally, some more attributes that should embody the project's network have to do mainly with: customers service, products sales according to the customers' needs and preferences, sustain of low prices and avoidance of mistakes in ordering, as a result of sales, delivering and after sales service improvement, along with the development of a relationship of mutual trust between the customer and the firm.

It seems that wood and furniture enterprises have not yet managed to develop trustworthy relationships among them and to spot the opportunities they have in developing cooperative activities using high technology, acquiring a fundamental competitive advantage. In order for this target to be achieved, they should focus to specific cooperative activities and to the exchange of entrepreneurial practices, without this strategic choice be in confrontation to their independent operation. However, results indicate the adequate cooperation the Greek wood and furniture enterprises develop with their customers, based to mutual trust relationships, a fact that is perceived as very positive for both sectors. All is needed is for the firms to give the opportunity to the consumers to get to know one another and their products, after a systematic market research and spot value elements for themselves. The present research is proposed to be continued in order the number of the participating consumers to become much higher including all the age categories. Finally, the present research could be combined with a market study of the e-furniture's project participating enterprises, in order for the

results to maximize their benefits and simultaneously satisfy in the best possible way the needs and preferences of the firms' customers.

## ACKNOWLEDGEMENTS

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## TELEVISION ADVERTISEMENTS AND GENDER: NEUROMARKETING RESEARCH USING EEG AND AN ODDBALL PARADIGM

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### ABSTRACT

This Neuromarketing study compares the brain responses of men and women watching TV advertisements. High density EEG was used to record the neural activity of 10 female and 10 male participants while watching video stimuli based on an oddball paradigm with a frequent-rare ratio of 75%-25%. The advertisements were chosen according to their main target: male and female.

The sLORETA analyses showed that the prefrontal, fronto-temporal, anterior cingulate (ACC) and parieto-occipital cortices experienced higher activation during the visualization of TV ads, for both female and male participants. Specifically, the prefrontal cortex activity was found to be positively correlated to the likeability, attractiveness and pleasantness scores obtained in a questionnaire.

Furthermore, the results from multiple analyses indicated statistically significant differences between male and female participants in most of the electrodes. Females presented higher frequencies' power and P300 amplitudes, as well as activated more brain areas related with emotions, particularly the ACC. Thus, it is suggested that men and women employ distinct cognitive strategies when processing TV advertising stimuli and, consequently, that neuromarketing methodologies and techniques are appropriate to assess the efficiency and effectiveness of ads in different segments, such as those defined by gender and age.

**Keywords:** *Neuromarketing, EEG, Gender, Advertisements, Oddball Paradigm, sLORETA*

### INTRODUCTION

Neuromarketing is a research field that employs techniques and practices from Neurosciences in order to increase the knowledge about the human behavior in a Marketing context (Lee *et al.*, 2007; Banks *et al.*, 2012;). This leads to the study of Marketing issues using different types of data, collection and processing methodologies, and scientific instruments whose rigor has been validated in the neuroscience field (Hotz, 2008; Ariely & Berns, 2010).

This research study focuses on the way men and women's brains react to television advertisements, as gender is commonly used by marketers and advertisers as a core segmentation strategy whose success depends on a deep understanding of how men and women process marketing information, judge products, and behave in the marketplace (Putrevu, 2001). Since a TV commercial shows many elements that may stimulate the participant in a very short period, the electroencephalogram, or EEG, due to its excellent temporal resolution, presents itself as a reliable neuroimaging instrument to register the experimental data (Ohme *et al.*, 2009). In particular, the EEG analysis of the Event-Related Potentials (ERPs) can help define the activation time-frame of certain mental operations, like the ones involved in attention, language processing, perception and memory, that are processed in milliseconds (Teplan, 2002; Vecchiato *et al.*, 2012). The study of ERPs, and especially the P300 component are starting to be used in Neuromarketing (Ma *et al.*, 2008). The P300 is a late positive peak mainly influenced by the frequency of stimulus presentation and the relevance of the task (Bledowski *et al.*, 2004). It has been linked to higher-order cognitive processes of attention allocation, memory updating, and classification of stimuli. The attention resources required to process a given stimulus are thought to be directly proportional to the P300 amplitude. When the paradigm is held constant, the P300 has a higher peak for the stimuli that have either negative or positive emotional value to the participant, than for stimuli with neutral emotional value (Gray, 2004). Therefore, an oddball paradigm was selected for this experiment since it elicits the P300, while also increasing the statistical significance of the results by repeating the stimulus presentation.

To systematize, this research seeks to answer the following questions:

- Q1) What are the areas of the brain that have an important function when people are exposed to a TV advertisement?
- Q2) Is there a significant difference between men and women's brain responses to TV ads?
- Q3) If the answer to the previous question is "yes", then what are the specific elements in the TV ad causing that difference?
- Q4) Are the EEG, sLORETA® and oddball paradigm effective and efficient techniques and methodologies for a Neuromarketing research?

Finally, it is important to note that the use of neuroimaging to probe the consumers' brain needs a deep reflection within neuroethics, because it is necessary to ensure that the parties who are involved in the research are protected from possible exploitation, or that the public in general is protected from eventual highly effective advertising that compromise consumers' psychological autonomy. In order to comply with this concerns, the goals, risks and benefits of Neuromarketing research must be explicitly and clearly stated (Hotz, 2008; Murphy, 2008).

## LITERATURE REVIEW

Previous studies attest the difference between male and female brain responses to certain stimuli. For instance, Neuroscience studies supported in the Marketing field validate the existence of gender differences at a biological level. These differences appear during the 8th week of gestation, when testosterone bathes the brain of the male fetus, causing the deactivation of areas involved in communication and activating regions associated with aggression and sex. On the other hand, the female fetus does not receive the testosterone bath, and so it has more regions related with emotions activated and it develops stronger interhemispheric connections. Thus, women tend to show more developed multitasking skills than men, and are more effective at processing emotional and rational information simultaneously (Putrevu, 2001; Ifezue, 2010; Pradeep, 2010; Sun *et al.* 2010). Other experiments in the Neuroscience field showed that: ERPs' potential, such as the P300, tended to be more significant in female than in male participant (Bötzel & Grüsser, 1989; Steffensen, 2008) and men and women recruit different brain regions for spatial navigation (Grön, 2000).

Reviews carried out in the marketing field suggest that: gender differences can be also identified at a cognitive, behavioral and social level (Putrevu, 2001; Sun *et al.* 2010); men are most aroused when presented with sexual sources, such as nudity, while females are more influenced by romantic sources and tend to have an interest increase for male models (Ifezue, 2010); and males benefit from nonverbal reinforcement, and females benefit more from verbally descriptive messages (Putrevu, 2001). As for survey-based Marketing studies, the results indicate that: mood effects while processing advertisements vary with gender [ $n = 282 - 165 \text{♀} - 117 \text{♂}$ ] (Martin, 2003); women characteristically score higher on intensity measurements of both positive and negative emotions [ $n = 740 - 409 \text{♀} - 331 \text{♂}$ ] (Moore, 2004); information is more important for males, while entertainment is more important for females, that are also more influenced by the interaction effect of information and entertainment [ $n = 134 - 87 \text{♀} - 47 \text{♂}$ ] (Sun *et al.*, 2010); males were more aware of individualist messages, while females noted the collectivist emotional appeals present in the public-service announcements and were more persuaded by their content [ $n = 578, 312 \text{♀} - 266 \text{♂}$ ] (Andsager *et al.*, 2002).

As for Neuromarketing, there is one study using MEG that considered gender to understand the neural mechanisms involved in the behavior of purchasing day-to-day items (Braeutigam *et al.*, 2004). That study indicated that at around 300 ms women activated regions of the brain related to category-specific knowledge, whereas men activated regions related to spatial memories. Also, there were larger  $\gamma$ -waves for women when a product's preference was high. Additionally, in the many tests carried out by Neurofocus, a Neuromarketing company recently acquired by Nielsen, 90% of their studies detected differences between the cerebral reaction of male and female participants (Pradeep, 2010).

## METHODOLOGY

### *Variables*

Two variables were considered in this experiment. The first was the gender of the participant (male; female). The second were the dynamic visual stimuli ('TVad'; 'VidSeg'). Regarding the last variable, its two levels consisted in edited mute video segments. The 'TVad' segments were 5 different TV advertisements with elements that would provoke different reactions among the male and female genders. As for the 'VidSegs' they were 5 different video segments where there were no references to brands, as well as an absence of human faces and no elements that *apriori* might elicit different reactions among the two genders. Furthermore, each one of the 'VidSeg' segments had also to be related to its corresponding 'TVad' segment, in a way that their background and colors were alike.

### *Participants*

The sample used in the research consisted of 20 healthy caucasian participants of the same nationality (mean age: 22,1 years), where 10 of them were male and the other 10 were female. They were all right-handed, had an age between 20 and 24, and had secondary education.

The sample size of this research is in the same order of magnitude of various other Neuromarketing EEG studies, such as Bledowski *et al.* (2004), Gray (2004), Huettel (2004), Ma *et al.* (2008), and Astolfi *et al.* (2009).

### *Questionnaire*

A questionnaire was administered to the participants and via email to other individuals of the same age range (20 to 24 years old ) and education as the participants, making a total of 51 questionnaire answers. The main purpose of this questionnaire was to complement the EEG results with data obtained from a traditional marketing research technique. Three different scales (yes/no, Likert and semantic differential) were used to assess the 21 questions for each of the 5 'TVads'.

### *The oddball paradigm*

The oddball paradigm was selected as it provided statistical power and significance to the results. It consists in randomly presenting two types of stimuli, one of them infrequently (oddball or target stimuli), and the other more frequently (standard stimuli) (Huettel, 2004). In this experiment, the target stimuli ('TVad' segments) and the frequent stimuli ('VidSeg' segments) were in a 25%-75% proportion. The participants were not asked to discriminate in any way the target and the standard stimuli presented in the video, thus this was a passive oddball paradigm.

### *Stimuli presentation*



The video stimuli consisted of a set of 5 blocks, presented in random order. Each block contained the two types of dynamic visual stimuli with the same duration that were repeated in a proportion that enabled the use of the oddball paradigm. The composition of each block was: B1- Gioia (TVad) & Clouds (VidSeg); B2- Super Bock (TVad) & Street (VidSeg); B3- Nespresso (TVad) & City (VidSeg); B4- Gio (TVad) & Sea (VidSeg); B5- L'Oréal (TVad) & House (VidSeg).



Figure 1: Sample frames from the 5 selected TV advertisements. From left to right, B1- Gioia (perfume for women), B2 – Super Bock (beer), B3- Nespresso (coffee), B4 – Gio (perfume for men) and B5 – L'Oréal (cosmetic product)

The ratio of TVads to VidSegs was 25% to 75%, a rare-frequent stimuli proportion with a considerable amount of stimuli repetition. Each TVad segment was repeated 5 times, while each VidSeg segment was repeated 15 times. Thus, all the twenty participants were exposed to many presentations of the same stimulus, which consequently increased the number of analyzed cases ('TVad':  $5 \times 20 = 100$ ; 'VidSeg':  $15 \times 20 = 300$ ).

In between the segments of a block, there were inter-stimuli intervals (ISI) with a 4 seconds duration, consisting of a white background with a black dot in the middle, and it was used to obtain a baseline register between the presentation of each commercial.

#### *Data acquisition and analysis*

EEG was recorded from 61 Ag/AgCl electrodes, divided in 14 groups, using the 10-10 standard system (Oostenveld, 2001). 60 electrodes registered the electrical brain activity in the scalp, while the VEOG (vertical electro-oculography) measured the eye movements and blinks from the sub-orbit of the right eye, and the supra-orbit of the left eye (Waismann *et al.*, 2003; Astolfi *et al.*, 2009). The EEG signal was digitally recorded offline with a sampling rate of 2000 Hz. The data was then processed with Analyzer® 2.0, starting with an automatic raw data inspection that limited brain electrical activity to a minimum of 0,5  $\mu$ V. The processed data was then segmented based on the type of stimuli: 'TVad', 'VidSeg', and ISI. Finally, the EEG records of those segments were averaged for each individual, and a grand average was later performed for all the participants, 10 male and 10 female participants.

The multiple analyses developed to meet the objectives of this experiment included:

I) statistical analyses of the answers to the questionnaire, which were subjected to a dimension reduction, using exploratory factor analysis (EFA) following the good practices of Hair *et al.* (2010).

The software used was the IBM SPSS®, the extraction method was the “Maximum Likelihood” with Eigenvalues greater than 1, and the “Direct Oblimin” was chosen as the method of rotation. The factor analysis was performed on 255 cases (51 respondents x 5 ‘TVads’) and the questions were grouped in five factors, attaining a Kaiser-Meyer-Olkin (KMO) value of 0.836 and Cronbach’s Alpha for total reliability of 0.817. These five factors were responsible for 75.88% of the total variance.

II) t-test analysis of the EEG records of the male/female participants.

III) frequency analysis, where frequency brain maps were generated by Analyzer®, to show the distribution of the frequency wave bands in the scalp, for all the video stimuli. The selected frequency spectrum (4-60 Hz) covers the Theta, Alpha, Beta and Gamma waves. The Delta waves were not taken into account as the amplitude of these waves, enhanced by the oddball paradigm, was considerably higher than the remaining (Başar, 2001).

IV) inspection of the amplitude and latency of ERPs.

V) results coming from standardized low resolution electromagnetic tomography (sLORETA) which provided additional information about the localization of the neural sources responsible for the electrical activity recorded in the scalp. The sLORETA was selected to complement the results obtained with the EEG recording, because it presented an approximate solution for the inverse problem with an accurate localization (5 mm) of the neural sources in 3D space (Pascual-Marqui, 2002).

All the t-test analyses performed in the multiple analyses were two-tailed, with  $\alpha=0,05$ , except for the calculation of the t-threshold with sLORETA, where one-tailed tests ( $A>B$ ) were used.

## RESULTS

### *Questionnaire results*

The detailed information about the five factors provided in Table 1 indicates that, besides the acceptable reliability value of factor 4, the remaining factors were very reliable (DeVellis, 2003). The resulting data enabled to display graphically how all the respondents classified the 5 ‘TVads’ (see Figure 2).

	Name	Total $\sigma$	Reliability	Question	Scale Anchors	
					1	7
<b>Factor 1</b>	General depiction of the ad	29.41%	0.845	Likeability of the ad Feelings after watching the ad Classification of the ad Informational content of the ad	did not like very annoyed low attraction insufficient	liked very much very pleased high attraction more than enough
<b>Factor 2</b>	Humour	22.12%	0.856	Humorous content of the ad Humor of protagonist(s)	not funny not funny	very funny very funny
<b>Factor 3</b>	Attitude towards product and brand	10.33%	0.875	Probability of buying the product Product usage Product attitude Brand attitude Brand familiarity	not likely never not favorable not favorable very low	very likely very frequently very favorable very favorable very high
<b>Factor 4</b>	Gender of target audience	8.20%	0.672	Fame of the protagonist(s) Gender target of the ad Interest of the protagonist(s)	not famous male not interesting	very famous female very interesting
<b>Factor 5</b>	Sensuality	5.62%	0.871	Sensuality of the protagonist(s) Sensuality content of the ad Beauty of the protagonist(s) Aesthetic content of the ad Sensations conveyed by the ad	not sensual not sensual not beautiful ugly low intensity	very sensual very sensual very beautiful beautiful high intensity

Table 1: Detailed description of the factors resulting from the EFA.

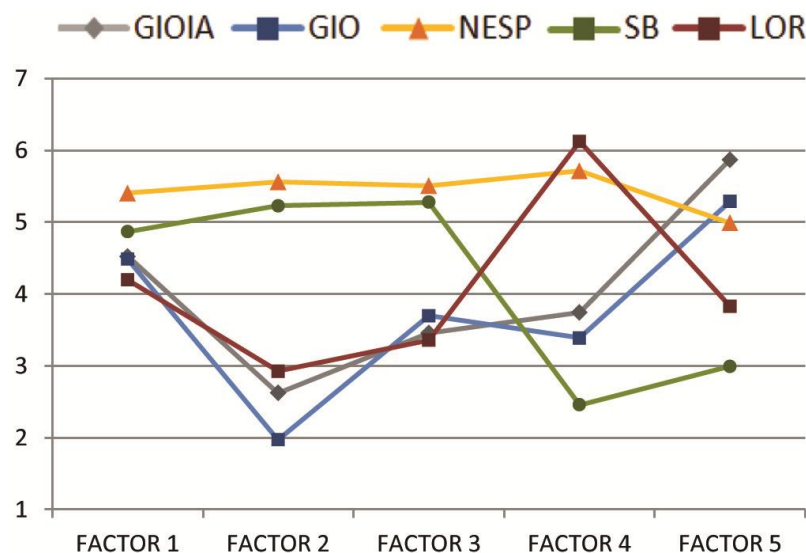


Figure 2: All participants' answers to the questionnaire grouped in factors, for all 'TVads'.

Gioia and Gio 'TVads' varied similarly along the five factors. As for the Nespresso 'TVad', it obtained steadily high scores in the five factors and thus can be inferred to be the most successful of the 'TVads'. Finally, the Super Bock and L'Oréal 'TVads' displayed almost symmetrical scores. The L'Oréal advertisement attained overall lower scores (except for factor 4) it was not very effective for the population associated with this experimental sample, as it targeted an older female audience, not represented by the young female sample.

*EEG results for full TV advertisements*

In this analysis, the grand averaged EEG records of 10 female and 10 male participants were compared, using an independent t-test. For almost all the groups of electrodes and for all the 'TVads,' the p-value was 0% ( $p=0,00$ ), implying that the EEG records of female participants were statistically different from the male.

As for the frequency brain maps, the more interesting results showed that female participants had very active Alpha frequencies in the occipitotemporal area, particularly in the occipital region, whereas the male participants had a much smaller activity of Alpha waves concentrated only in the occipital cortex. Moreover, female participants had slightly less Alpha activity for the Super Bock and Aqua di Gio advertisements, which implies that female participants paid more attention or processed more information while watching these 'TVads', as Alpha rhythms have been inversely related to neural engagement (Feige *et al.*, 2005).

Finally, higher Beta and Gamma power was detected in the advertisements with protagonists which were ranked higher in terms of sensuality/ sexiness and beauty (Gioia for male participants, and Gio for female participants). Beta and Gamma waves were associated with attention engagement, especially over the frontal and central areas (Başar, 2001; Braeutigam, 2004). **Beta oscillations imply higher levels of information processing, and Gamma waves reflect stages where information is actively processed, as those involved in cognitive or motor functions (Niedermeyer, 2005).**

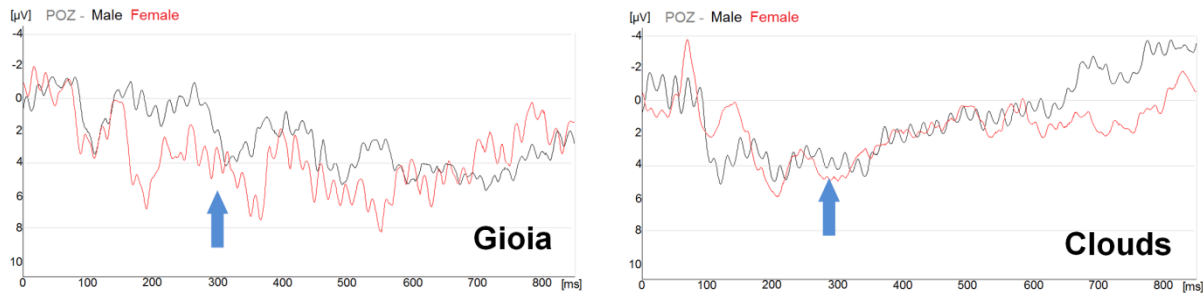
*EEG results for segmented dynamic visual stimuli (0-850 ms)*

This analysis focuses on the statistical results coming from t-tests, the ERPs' latencies, and frequencies, for the initial 850 ms of the TV advertisements and frequent stimuli.

Considering the male and female participants as two independent samples, t-tests were used to compute the difference of the EEG records' mean values of the 10 female participants with the 10 male. The groups of electrodes that did not attain statistical significance in terms of gender difference were the left and right frontal pole, left frontal, right temporal, as well as left and right occipital, for the Gioia 'TVad'; the central and right parietal, for the Nespresso ad; and lastly the left occipital together with the left and central parietal, for the Gio advertisement. The Super Bock and L'Oréal advertisements were the only 'TVads' with significant results for all the groups of electrodes, which might have to do with the fact that both were considered by the respondents of the questionnaire to be clearly targeting a male (Super Bock) and female (L'Oréal) audience.

In the ERP analysis, the P300 was considered to be the largest positive deflection in absolute value within the 300 to 700 ms epoch (Gray, 2004). For example, in Figure 3 (Gioia 'TVAd') it is possible to discern a positive peak at around 300 ms for both male and female participants. Additionally, a positive deflection was also observed 300 ms after stimulus onset in occipitotemporal channels. Sites

T6 and PO10 had a higher P300 for male participants than female. As for the Nespresso commercial, the prefrontal electrodes registered a clear peak at 380 ms that was especially prominent in female participants. Regarding the Gio ad, in the prefrontal channels there was a small positive peak at 300 ms for male and female participants, though female also registered a pronounced late positive potential at 600 ms.



**Figure 3: Averaged ERPs from 10 female (in red) and 10 male (in black) participants for the Gioia 'TVad' and Clouds 'VidSeg', in the POZ electrode. The P300 component is indicated by a blue arrow.**

As for the frequency analysis, it reinforced the validity of selecting the 'VidSegs' as the standard stimuli in the oddball paradigm, because 'VidSegs' Street, City, Sea, and House, displayed little to no activity of Beta and Gamma rhythms in the participants' scalp, which suggests that, unlike the 'TVads' that had Beta and Gamma power, the 'VidSegs' did not involve explicit cognitive processes (Başar, 2001; Braeutigam, 2004). Other relevant results indicate a high prefrontal Gamma (39 to 46 Hz) activity in the Gioia 'TVad' for male participants, while female had also similar Gamma power distribution for the Gio 'TVad'. Concerning the Super Bock ad, female participants displayed left frontotemporal Gamma activity, whereas male displayed it in the right frontotemporal region. The Nespresso advertisement, in accordance with the results obtained from the full TV advertisement frequency analysis, showed barely no Beta and Gamma wave band activity, particularly in males. Finally, there was a thin frontal distribution of these wave bands for the female participants, when watching the L'Oréal commercial.

#### *sLORETA (0-850 ms)*

This analysis compared the areas of the brain that were activated during the participants' responses to the 'TVads', against their responses to the baseline from the corresponding Blocks, for a small time interval of 0 to 850 ms. The calculations were performed by grouping the 10 female (or male) individual averaged data from the EEG recorded during the presentation of the 'TVad', and the ISI belonging to the respective Block. These groups were then compared using a one-tailed paired t-test, where  $A('TVads') > B(ISI)$ .

The sLORETA generated 3D models of the participants' brains, more specifically the grey matter (Lancaster, 2000). In Figures 4 to 8 it is possible to see the slice view maps displaying the differences between the 5 'TVads' and their respective baseline EEG registers.

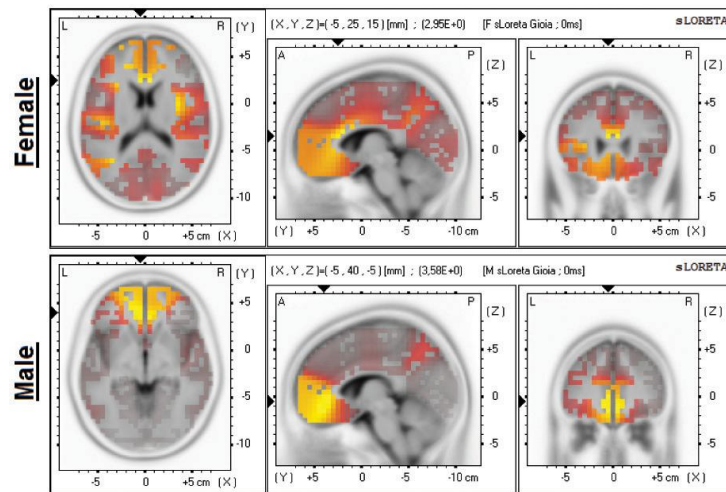


Figure 4: Slice view map of the brain of 10 female and 10 male participants, for a 0-850 ms segment (Gioia vs ISI).

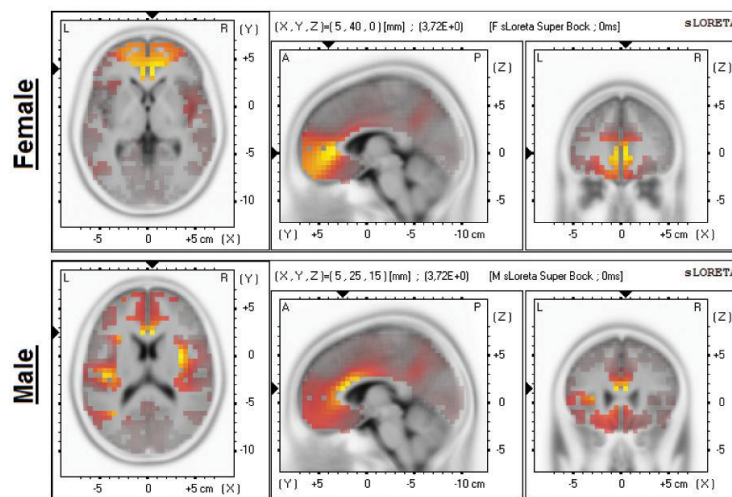


Figure 5: Slice view map of the brain of 10 female and 10 male participants, for a 0-850 ms segment (Super Bock vs ISI).



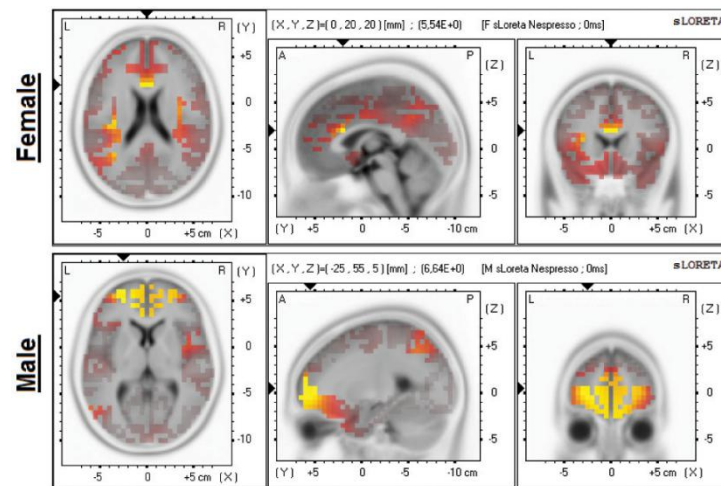


Figure 6: Slice view map of the brain of 10 female and 10 male participants, for a 0-850 ms segment (Nespresso vs ISI).

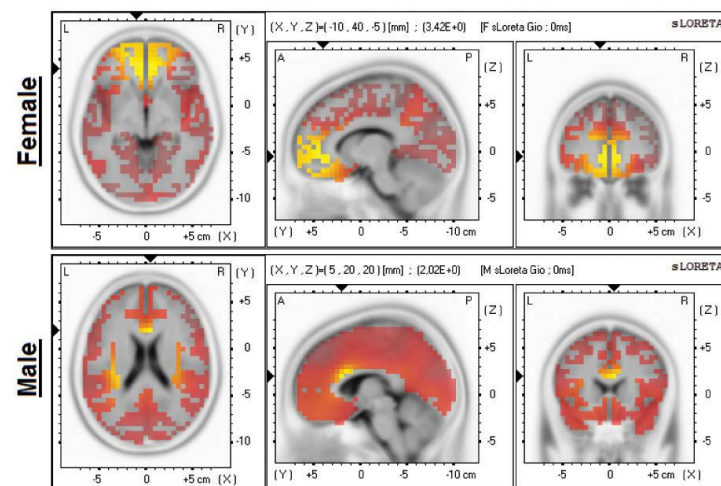


Figure 7: Slice view map of the brain of 10 female and 10 male participants, for a 0-850 ms segment (Gio vs ISI).

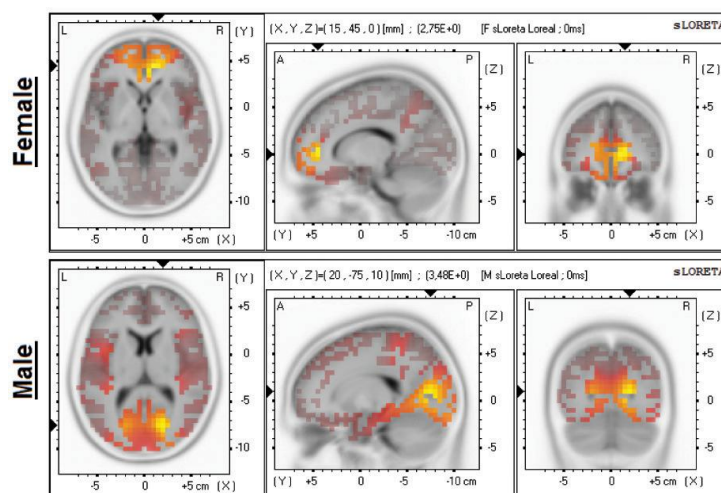


Figure 8: Slice view map of the brain of 10 female and 10 male participants, for a 0-850 ms segment (L'Oréal vs ISI).

## DISCUSSION

Throughout the multiple analyses performed, the prefrontal, frontal, frontotemporal, parieto-occipital and occipital cortices, as well as the limbic system, experienced greater activation for the 'TVads' than for the 'VidSegs' and ISI. P300 peaks, which are positively correlated with attention, were elicited in those areas. There was also higher activity for the wavebands associated with cognitive processing (Beta and Gamma). Consequently, those brain areas are thought to have an important role in the processing of the TV advertisements stimuli. Particularly, in the sLORETA results, the prefrontal cortex (medial frontal cortex) and ACC stood out for their involvement in the processing of emotions conveyed by the 'TVads', and the prefrontal cortex activity was found to be positively related to the likeability, attractiveness, and pleasantness of the 'TVad'. The prefrontal cortex has been implied to be involved in high-level planning, regulating emotions, and higher-order cognitive processes (Plassmann *et al.*, 2008). This answers the 1<sup>st</sup> research question.

Furthermore, the results point out clear differences between male and female responses to TV ads: females usually presented higher frequencies' power and ERPs' components than males (Bötzel & Grüsser, 1989; Steffensen, 2008). In addition, females usually activated more brain areas than males, in particular the anterior cingulate cortex (ACC). Thus it is possible to suggest there are different patterns of neural activity depending on the gender, leading to distinct strategies and cognitive patterns employed by men (heuristic approach) and women (elaborative approach), which is in accordance to the findings of Martin (2003).

It is also important to point out that a small peak appeared at around 600 ms in the Gioia advertisement, for both male and female participants, whereas in the Gio ad there was a sharp P600 for females, and no relevant positive deflection for males at that specific time. Knowing that the P600 has been suggested to be an erotic preference indicator (Waismann, 2003), and having in mind that Gio's protagonist received the highest scores for the sexiness/ sensuality criterion from female participants it is possible to infer that female participants had an arousal response to the Gio 'TVad'. On the contrary, Gioia did not elicit prominent P600 even though the protagonist also scored high in that criterion for both male and female participants. A probable explanation is that the female protagonist in the Gioia ad was wearing clothes, while Gio's protagonist was bare-chested and only wore swimming trunks, which has more propensity to stimulate arousal in females. Thus, the 2<sup>nd</sup> research question is addressed.

Regarding the 3<sup>rd</sup> research question, and based on the answers to the questionnaire, the protagonists, the humorous content and the familiarity with the brand of the 'TVad', were the elements most likely causing the differences observed, as they strongly influence the overall likeability and attractiveness of the advertisements.



Finally and critically, the independent t-tests confirmed the significant differences between the male and female participants' neural activity for most groups of electrodes and ads.

## CONCLUSION

To sum up, by using techniques and methodologies such as the EEG, sLORETA®, and the oddball paradigm, alongside with a questionnaire, this Neuromarketing study presented results that pointed out significant differences between the way male and female participants process the TV advertisements stimuli. Therefore, the 4<sup>th</sup> research question is validated.

It is thus suggested that this type of study is appropriate to assess the impact of ads in different segments, such as gender and age, since neuroscience can complement traditional marketing with rigorous, reliable and scientifically-sound methodologies and techniques, allowing greater insight on the neural mechanisms behind consumer behavior. Additionally, Neuromarketing studies require smaller sample sizes than conventional studies (Hotz, 2008; Pradeep, 2010), enabling more effective and cost-efficient marketing campaigns.

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## SOCIAL MEDIA MARKETING AND WINE: NAKED WINES CASE STUDY

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### ABSTRACT

Social media are leading to major changes in business and consumers' behaviour. The aim of this paper is to achieve a deeper understanding of an emerging way of involving consumers into the business development, based on their increasing willingness to assume a proactive role that goes beyond the co-creation of value - in terms of their participation through social marketing tools - to include financial support of producers. For this purpose we have chosen a case study approach, analysing the unique feature of Naked Wines ("NW") experience, a prominent online wine retailer established in UK since 2008. NW consumers can choose to invest in wines, before that they are produced, financing the business of winemakers and they can have a leading role in the evaluation process (i.e. tasting and scoring) of wines.

The paper is organized in four sections. In the first, we explain why and how multichannel marketing (off-line and on-line and) is used to cope with changes in consumers' behaviour. Then, we look at the relation between wine business and the multichannel marketing in UK. The following section focus on NW in order to highlight: roles and responsibilities of two consumers' profiles (Angels and Archangels), relationships with winemakers, and interaction devices in use (marketplace, blog, app). Finally, through the analysis of some questionnaires, administrated online to the Archangels, we attempt to investigate on their motivations, commitment and feedback, to improve NW activities in the future.

**Keyword:** *Multichannel marketing, Wine industry, Naked Wines, Disintermediation, Crowd founding, Social proof.*

### INTRODUCTION

Social media are leading to major changes in the way to do business and to reach and to engage consumers. The aim of this paper is to achieve a deeper understanding of an ongoing evolution of consumers' role based on their increasing willingness to assume a proactive role, that goes beyond the co-creation of value - in terms of their participation through social marketing tools - to include direct

financial support of producers. For this purpose, we have chosen a case study approach, analysing the experience of Naked Wine ("NW"), an online specialist wine retailer established in UK since 2008, that developed a successful online business based on the disintermediation of middlemen and on the building of a direct relationship between producers and consumers, who took a proactive role in directly financing winemakers. Our qualitative analysis is based on secondary data taken from NW websites, press reports and articles as well as primary data gathered through interviews, based on a questionnaire - administrated online to the more involved individuals who participate in Naked Wines business, the so-called Archangels.

The paper is organized in four sections. Firstly, we briefly analyze how the evolution of available technologies (e.g. internet and mobile devices) and changes in consumer behaviour has led to the development of multichannel marketing approach, i.e. traditional marketing channels are integrated with non-conventional ones. After this, we look at the relation between wine business and the multichannel marketing in UK. E-commerce has become one of the most profitable opportunity to catch consumers, exploited by large grocery retailers and direct-to home wine specialists. In the third section, we highlight the distinctive and unique feature of NW business model. In particular, we discuss: roles and responsibilities of two specific profiles of consumers (Angels and Archangels), relationships with winemakers, and interaction devices in use (marketplace, blog, app). Finally, we present the results of the interviews and discuss the characteristics of Archangels and their commitment and motivations to participate.

## **MULTICHANNEL MARKETING TO FACE NEW TRENDS IN CONSUMER BEHAVIOUR**

The changes in the society of the postmodern era is undoubtedly related to the rapid evolution of technologies available to businesses and consumers determining, therefore, a broader view of the traditional concept of marketing (Simmons, 2008).

In the third millennium, consumers are characterized, among other things, by a renewed need for sociability (Boaretto et al., 2011). In this social context, new relationships arise based on the need to establish a group or a community and tribe. These social entities share a common interest as well a passion or it may be a previous/rediscovered bond of friendship, etc. One of the characteristics of this type of relationships is the facility with which it is possible to enter or to exit by this particular social context and the absence of relative costs. The implication for marketing is that consumers can move from one purchase scenario to another with a dramatic mobility, never experienced before. It is this "enhanced" capability that defines the mobility as one of the dimensions that characterize postmodern consumption (Semprini, 2006). Mobility has two dimensions: physical and mental (conceptual).

The physical mobility refers to the worldwide as well local movement of people, goods, informations and money. This event has been increased in last decades thanks to new technologies. The mental mobility is related to the capability to develop more activities at the same time. That implies a stratification of contexts (Boaretto et al., 2011). in which it is possible to travel, to socialize, to purchase and to work in the same context (train, station, airplane, etc.) using, for example, a wifi connection.

The expression *homo mobilis* refers to a person/consumer/client that has the opportunity to be steadily wireless connected to satisfy daily needs. The so-called mobile devices are capable to allow this condition. Through the last generation of these instruments, such as smartphone and/or tablet, the mental mobility condition is facilitated. In this scenario, people display needs through multi-modal patterns and for this reason are involved traditional marketing methods as well those of non-conventional marketing. In particular, Kaplan (2012: 130) defines mobile marketing as “any marketing activity conducted through a ubiquitous network to which consumers are constantly connected using a personal mobile device”. Consumers to satisfy their own needs use the online channel (e.g. promotion via web, email, blogs, websites, mobile connectivity devices) such as the off-line channel, e.g. traditional media, in-store promotions, events, to get information and compare the characteristics of the products/services before purchase. This scenario defines the cross-channel behaviour: the potential consumer/user performs the act of purchase using/passing through (in the marketing literature, these people are called web surfers giving the idea of the dynamic of their consumer behaviour) from a marketing channel to another (Arikan, 2008). The significance of the different channels and their related tools is connected to the phase of the buying cycle to which they refer. For the overall effectiveness of multichannel marketing strategy is crucial the continuous “contact” between the marketer and his/her customer. So, it is defined the multichannel marketing that “refers to marketing communications delivered on multiple media in parallel and, hopefully, in a coordinated fashion. The term also implies that responses to marketing initiatives are accepted from multiple channels” (Arikan, 2008: 8).

In a traditional marketing context, it could happen that the target segment remains “uncovered” due to a lack of tools to follow customers in their new status of mobility. However, that does not happen in the multichannel marketing scenario because through the lift effect it is possible to create opportunities for interaction with the customer depending on the physical place/mental state in which she/he finds. This condition allows capitalizing the value of the relationship with the customer for every point of contact. Using the applications of mobile marketing, such as those that refer to the mobile social media group - that “allows the creation and exchange of user-generated content” (Kaplan, 2012: 131) – the company can interact with the customer in those stages where traditional marketing cannot reach he/she. However, it is useful to clarify that it is not a condition of “control” of the customer but a new opportunity for interaction with him/her – e.g. the follower pages or “I like/I dislike” on the social

networks as Facebook.

The co-creation strategy works in synergy with the lift effect. That means that the experiences and the suggestions of consumers become part of the contents of communications and strategy firm: "...buyers what to be in charge" (Arikan, 2008: 7). The best way to involve and associate the consumers consists in giving them the opportunity to leave their impressions and suggestions in the web hosting company (Mangold and Faulds, 2009). One of the most used tools is the feedback through a blog. In many situations, contributors are rewarded with special mentions and with the offer of dedicated services. In this way the company is able to optimize the entire marketing campaign: picking up the real needs, making a more effective communication strategy and reducing the costs of deploying content available through interface devices, avoiding a potential failure if it is not "... listened customers' voice" (Waisberg and Kaushik, 2009). The last but not the least advantage of the co-creation strategy is that it allows the activation of earned media. In fact, thanks to the comments let on the social networks and corporate websites, the company expands its benefits, in terms of: brand and corporate reputation, buyers' confidence, credibility and transparency, improved efficiency in sales management. In particular, the e-commerce sites to increase the confidence of buyers exploit the social proofing i.e. the fact that people tend to believe that decisions and actions taken by the majority reflect the correct behaviour in a given situation. If customers can see how other people are using a site, which products they are buying, this provides them with a security. So, to take advantage of this behaviour, e-commerce sites need to create an experience, which shows to potential customers that they're not the only people making the same purchase decision.

## **WINE INDUSTRY AND MULTICHANNEL MARKETING IN UK**

An interesting case of multichannel marketing approach is the wine market in the UK. In the UK supermarkets hold a 45% share in wine sales, followed by specialty stores (25%), on-trade (20%), and small businesses and grocers (CBI, 2011). From 2007, economic scenario has hit all players in British wine market, as well as, has caused a change in the habits of purchase. In this period, grocery retailing has become increasingly concentrated in the hands of few chains (e.g. Tesco, Asda, Sainsbury's, Marks & Spencer). The strategies of large grocery retailers are, on the one hand, the same as always, to sell larger quantities, subtracting them to the competitors through price based strategies; on the other hand, to develop strategies to capture consumers everywhere and every time. The price based strategies aim at a competitive price compared to competitors and, at the same time, which may provide added value to the bottle. In recent years, the solution adopted by British retailers aims to exclusive or semi-exclusive agreements with large wineries, in order to obtain labels with their own brand or that of the producer but exclusively for their market. The major retailers have exploited the internet technologies

to create opportunities to develop competitive advantage through streamlined operational costs and e-commerce have offered the opportunity to meet needs of the consumer for a more efficient use of the time devoted to the purchase, as well as a price advantage and to introduce innovative new services to capture consumer interest and deliver customer benefits (Ellis-Chadwick et al., 2007).

Wine consumption increased slightly, despite the negative influence of high taxation and consumption off premise has grown more than consumption on premise (Rabobank, 2013). In addition there are more people who say they feel competent and they attribute to the grape variety (i.e. the first criterion of purchase in the UK) and the terroir more importance than before, at the time of purchase (Wine Intelligence, 2013). In this last decade, the wine consumer behaviour is evolving in a way that reflects market changes and the novelties in the information and communication systems. New segments are defined in addition to the traditional ones. In particular, there exist consumers belonging to the segment defined “tribal”, for which the sense of belonging derives from being part of a group; others belong to the group “being there” who wish to share consumption experiences; finally, there is a segment of wine consumers so called “transparency” that looks at traceable honesty to reassure their sense of responsibility (Halstead, 2014). In the mobile marketing scenario, a large number of applications - designed for mobile devices - allow consumers to get closer to the world of wine, in a personal way and without the mediation of an “expert”. This aspect satisfies not only those who want to shop in the most convenient way (both in terms of price and time) but mainly those who are newcomers to the wine world and those who want to share their experiences of consumption.

In Britain, online wine sales are now an important retail vector channel. According to a Wine Intelligence report (Schmitt, 2013), the UK online wine market accounts for 11% of total wine sales in the country (worth £800 million). The sector has grown by 470% in the past 8 years – equivalent to a compound annual growth rate of 21%. Much of the recent growth has come from consumers using supermarket home delivery services to order wine, as opposed to the more traditional direct-to-home wine specialists who generally sell wine by the case. The growth of online grocers and the proliferation of handheld mobile devices have been such that 25% of UK wine consumers are now shopping online. Tesco has captured about a quarter of all internet wine sales in Britain and the Tesco Wine web site (Tesco Wine by the Case) provides wine selections very convenient respect to the variety offered and delivered in short time (a day or a few hours). In addition to the leading supermarkets and specialist shops which sell wine online, there is a number of online-only wine stores and wine clubs which are growing in popularity, some supply to restaurants and stores in addition to customers, while others are oriented towards delivering wine directly to the consumer. Among them Naked Wines is the most visited UK online wine retailer in the drinks category and the 18th most visited drinks website globally (Tabraham, 2013).



## NAKED WINES: INNOVATION IN WINE BUSINESS

In 2008, Naked Wine (NW) was launched in UK as an online wine retailer. The company sells wines mostly produced by medium-small sized independent winemakers from around the world. NW ships an average of 20,000 bottles every day and it has over than 200,000 online customers. The company structure is formed by Naked Wines Int. which operates in three reference markets (i.e. UK, USA and Australia) and controls the financial aspects through two distinct companies (Naked Wines Prepayments Trustee Co Ltd. and Naked Fine Wine Bonds plc).

The innovative idea of the business is to offer to customers a very different experience of buying and consuming from those usually based on shopping standard wines in supermarkets. NW customers can choose to invest in wines - before that they are produced - financing the business of winemakers and they can have a proactive role in the evaluation process (i.e. tasting and scoring) of wines. Moreover, to all the customers is guaranteed, thanks to a very efficient logistics, the delivery of orders within the next day, with a full money back guarantee. From the supply side the innovative idea is the participation of independent producers - who by their productive and financial dimensions - would have difficulties to sell into conventional marketing channels. In this way, Naked Wines has become the first online marketplace that brings together small independent producers of wine, enhancing it, and creating a direct sales model jumping the inefficiencies and costs of long distribution channels with the various stages of mediation, thus facilitating producers.

*Naked Wines - who: wine Angels/Archangels and winemakers*

Naked Wine is based on the participation of two customer profiles, the Angels and the Archangels, who assume different roles and responsibilities.

Naked Wine Angels are a very special group of people who support winemakers by investing £20/month into their NW account towards their next order. In exchange, they pay an angel price saving at least 25% and up to 50% every time they buy. They get access to a whole host of other benefits such as: a free premium bottle every month if they order a case, or/and invitations to exclusive tasting events. The funds collected from Angels and Archangels are invested by NW in financing new suppliers.

Some Angels can assume a more proactive role becoming Archangels. Archangels are required to be ambassadors of the company with which they communicate directly on a closed area of the website. They are asked to undertake different functions. They are involved in reviewing, tasting and searching of wines; to examine the website looking for weaknesses; to help new members to be confident with the community and to feel that they are in a friendly and helpful environment; to give consumers ideas of what wines they might try, given their tastes, and encourage them to try new products. Archangels should support Angels in different ways; mainly, assisting them in the website use, being confident

with wines' reviews, advising them on some new tasted wines and in general engaging them to be part of the community. Respect to the relationship with the producers, Archangels operate as a promoter suggesting their wines to new Angels.

Naked Wines currently works with more than 130 small-medium sized winemakers across 13 countries. There are two profiles of eligible suppliers: winegrowers with bottled wine ready to be placed in the market, or producers who needs a financing to support future production. NW supports their orders, production costs, salaries, trading and shares a per-bottle profit with them. When the wine is ready for selling, the winemakers send samples to NW, where they are tasted and judged by experts who will decide whether or not to buy them. The wine before to be put in the network is analyzed to ensure that it complies with the EU standards and if it does not pass the conformity test it will be returned, at no cost, to the producer. NW is interested in long-term relationships and works, only, on a cost plus basis. The idea is to develop a strategic win-win relationship to get quality up and prices. Winemakers benefits are: get cash flow early, don't incur in debts or finance/storage costs, know in advance exactly how much to bottle and when.

*Naked Wines - where: NW marketplace, Blog, App*

The web is the action's context in which the company operates. The Naked wines marketplace is a virtual market where producers pitch their wines and consumers make their bids. Each month, NW invites some winemakers to propose their wines, displayed on a virtual shelf, ready to be chosen by consumers at the best price negotiable – which includes shipping, delivery and 10% commission to Naked Wines. The deal is on if the bids reach a minimum volume; in this case the wines will be shipped directly from the winemaker in one go and without additional costs.

Through the online platform, NW offers a social experience with an innovative approach to customers' relationship – engaging them in its philosophy - not limiting to be just an e-commerce site (Quispel, 2013). Sociality and interaction are promoted through the individual online blog - Naked me - and the smartphone App available exclusively for the Angels. Naked Me is a personal feed, where is displayed everything that's relevant to the customer (e.g. a list of wines from the last order; updates from the followers, including recommendations; in case of Angels: free bottle alerts; stock alerts for favourite wines). Moreover, it is possible to interact chatting with winemakers or joining in discussion groups. The Naked Wines Mobile is the place where, exclusive for Angels, it's possible: to see the videos uploaded by the winemakers; to improve their knowledge about wines; to search for friends, offering them to become Angels; to chat with the winemakers on their message boards or into groups; to give scores to wines sharing them on Facebook or Twitter; to order wines.

*Naked Wines - how: disintermediation and social proof*

NW business model has two the distinctive features that need to be highlighted: disintermediation and social proof. Disintermediation refers to the process of “cutting out the middleman”, that means the reduction of number of links in the supply chain by eliminating certain functions and intermediaries. Naked Wine is a prominent case of double disintermediation in wine industry, e.g. distribution and financial function (Veseth, 2013). On the one hand, by direct sales, NW cuts out agents and distributors that contribute with, more or less, a margin of 50%, to the final price of a wine bottle. On the other side, NW collects finance to sustain winemakers through a large pool of backers (i.e. Angels/Archangels), cutting standard financial intermediates and exploiting the web opportunities of crowd funding (Mollick, 2014). Moreover, NW uses loan interest rates more convenient than those charged by banks.

In September 2013, NW launched a financial bond to raise funds for fine wines offering consumers 7% gross in cash interest p.a. or 10% gross in Wine Credits p.a. (a credit to their Naked Wines account) - raising £5 million in a month. They create a new company to issue the bonds, Naked Fine Wine Bonds plc, which holds and/or invests money in wines and owns the wines until they are ready for sale, when they will be sold to other companies in the Naked Wines Group for onward sale to Naked Wines' customers. In particular, NW invests only in grapes, barrels, bottles, and other direct production and administration costs. The mechanism of Fine Wine Bonds (FWB) gives the chance to operate in a kind of futures market; so when wines are imported into the UK the consumers have the opportunity to buy fine wines, prior than the others, at a competitive price. Finally, FWB might help to minimize the risk associated to bad weather conditions and poor harvests, recruiting different winemakers from many regions. The second distinctive feature of NW is the enhanced exploiting of the potential of offered by social proofing. Naked Wines makes effective use of consumer reviews and user comments across its website. Entering the home page, it is possible to notice the innovative and wide approach to customer relations. They are encouraged to become actively involved in the project in various ways: by communicating directly with the winemakers, commenting on the wines and providing suggestions on the website forum. They can eventually build a profile and find new companions enthusiasts to share ideas and experiences, e.g. visits with wine tasting in the cellars of the producers.

## **INTERVIEWS' RESULTS: ARCHANGELS' PROFILE AND MOTIVATIONS**

To assess Archangels' motivations with Naked Wines, 17 interviews were carried out through questionnaires administrated online. The principal socio-demographic characteristics of our sample are: i) respondents belongs to a wide range of ages, from 30 to 60 years; ii) nearly a quarter of them are women; iii) they have a medium/high education level - on the basis of the information provided about their job. The survey consists of 6 questions and aims to investigate about motivation, commitment and feedback in business development. For each question, the main results are reported below.

1) How did you find Naked Wines?

About half of respondents have found NW through a discount voucher or an advert flyer, while only 2 of them surfing into the online wine clubs.

2) Why did you decide to become an Angel and then an Archangel of Naked Wines?

Only 5 of respondents stated that the main reason that led them to become an Angel, was purely the price. For the most part of them, the motivations are more complex and are also the reasons by which they have agreed to become Archangels i.e. through the invitation of other Archangels or of NW. The given answers allow identifying the following three basic motivations: a) I like the business approach and the quality of wine; b) I like the social aspect and the online community, that permits me to learn more about wine and to discuss about it with other interested people; c) I like interacting with small boutique winemakers, supporting and promoting them.

3) What are the benefits of being an Angel and an Archangel?

Mainly, the benefits of being an Angel are related to the cost of wines, given that there are discounts available to support monthly financial commitments. Instead, the benefits of being an Archangel are perceived differently, consistent with three basic motivations outlined above.

The first group of Archangels highlighted that the most valued benefits are related to the opportunities to test wines and to participate at special events. Archangels have indeed the benefits from get sent wine samples - to try, to rate and to give a feedback - before that they are proposed onto the website. Occasionally there are special events for Archangels run by Naked Wines, such as tastings and meeting with new winemakers in order to find new wines to trade. Wine tours and invitations to trade fairs are potentially available on a selective basis. Recently, few Archangels went to California looking for of new wines and a team of them visited the Prowein Wine Fair in Germany and the International Tastings in London. Those initiatives are highly appreciated.

In the second group, there are those who overall enjoy to belong to an active community and to interact with customers (Angels and Archangels), winemakers and NW staff. It's interesting to quote two answers that - among all - better summarise the enthusiastic motivations: "I like to buy, taste and discuss about wine with like minded people in a friendly and welcoming environment. NW has also allowed me to expand my tastes in wine. I now tend to buy wines based on the opinions of people who I trust (not marketing people)" - "Of being an Angel – being part of something truly different, and having the opportunity to interact with other angels and winemakers. The angel discount obviously is an added bonus! Sometimes, I think they take my opinion of what they should do more seriously than my employers do...".

Finally, to the third group belong Archangels who particularly appreciate the benefits of having a relationship with winemakers, to get a different understanding of their world and to support producers

that may not be able to sell in supermarkets. In particular, these Archangels appreciate the opportunity: to choose winemakers to 'champion'; to commit themselves to make their wines known to Angels; to build up a relationship with the winemaker and - if feasible - to visit the vineyards. One interviewee refers: "Finding people like Carmen Stevens, the first black female winemaker, and seeing her sell her wine within 48 hours is a joy to behold".

4) What are the responsibilities of being an Angel or Archangel?

The primary responsibility, in both situations, is to commit to regular supplies of money upon which Naked Wines can guarantee associated funding to winemakers. In our survey, other Archangel duties are differently ranked: 13 consider that the main responsibility is to be active on the site, while 4 give priority to the interaction and the promotion of winemakers. Some of them (5) feel also the responsibility to promote Naked Wines and to be their ambassador.

5) What is the relationship between you other customers, winemakers and the company?

Overall, the relationships are deemed very satisfactory. Some of them make friendships during wine tastings events while others have direct contacts with winemakers visiting their vineyards.

6) What would you suggest to Naked Wines to improve in the future?

Overall, Archangels interviewed have shown a strong appreciation for Naked Wines, that has introduced a world-class model for accessing and distributing wines and that excels in customer relationships. The recent new idea - Fine Wine Bond - has been particularly appreciated to meet the demand for more aged wines. They consider the wine reviews fundamental to ensure that a high quality product is always available. They suggest that a strategic focus must be in place to identify new winemakers who are able to supply products even better than the current portfolio. One Archangel suggests that, perhaps, an independent committee (comprising not only Naked Wines staff but also Archangels and external industry experts) should be introduced to ensure a better offering. It is interesting to bring the comment of an Archangel about the criticality related to the growing differentiation of proposed wines. "I am always keen to see the number of new wines on the site grow, but would not want to see that number grow to such an extent that as customer, I struggle to keep up with some of the options. Taking the Laithwaite's (a British wine e-commerce site) as an example, they currently have 15 different producers of New Zealand Sauvignon Blanc, a style I love. Naked currently stock three producers' wines, each of which has a distinct character. As there are only three producers to choose from, I can try all of their wines and interact effectively with each winemaker about those wines". Many Archangels, however, have expressed concerns over the future challenges. Naked has grown so fast that the functionality of the site has to be sorted and requires some upgrades. The website should have to be continually updated to keep pace with what people want from it and that is felt as a bit of a challenge. Some complain that having so many customers could be frustrating for some when a

wine is quickly out of stock. However, they hope that Naked expansion into Australia and more so in the USA will help to solve the stock shortage, and in particular that the Naked winery in Napa will bring some great wines at fair prices in the near future. Moreover, a lot of Archangels emphasize that the model to work it still needs to be somehow small and intimate at the same time. Actually, the problem to solve for NW is how far they can expand without losing the personal touch they have with the customers who want to be involved and feel part of a team. One Archangel suggests that they could include sherries and other fortified wines, liqueurs and perhaps diversify into whisky or brandy, working with small suppliers and giving them a chance to have a relationship with their customers directly.

## DISCUSSION OF RESULTS

In this paper we investigate Naked Wine experience as a case study to achieve a deeper understanding of an innovative business model where the role of consumers goes beyond the co-creation of value to include financial support to producers. In particular, we address two broad topics: a) how this business model works and the Web 2.0 tools are exploited to support it; b) how and why the Archangels (key actors among NW consumers) are actively involved and become funders and promoters.

Our contribution to the field of social media marketing is the analysis of the consumers' motivations to participate through social marketing tools to business development, by exploiting an unique data base - gathered by one of the authors during her intership at NW - describing the motivations that led the most proactive consumers in NW network (the Archangels) to take a distinctive role in the development of NW network

According to our analysis, NW business model has two main distinctive features. First of all, Naked Wine is a case of "double" disintermediation in wine industry. On the one hand, by direct sales, NW cuts out agents and distributors that contribute with, more or less, a margin of 50%, to the final price of a wine bottle. On the other hand, cutting traditional intermediaries, NW exploits the web opportunities for crowd funding to sustain winemakers through a large pool of backers (i.e. angels/archangels), who in exchange get a price discount on the their orders. The second distinctive feature is the outstanding use, based on the active participation and involvement of Archangels, of one of the most effective techniques on e-commerce sites to increase the confidence of buyers: the social proof. Findings from our interviews offer some inside on costumers' motivations and commitment. The Archangels, although supporting financially the producers primarily to get a price discount on wine, strongly appreciate the quality of wine, the social aspect of the online community, that allow them to interact with other customers (Angels and Archangels) and NW staff and, last but not least, to interact with winemakers, financially supporting and promoting them. Overall, Archangels interviewed have shown

a strong appreciation for Naked Wines, that has introduced a world-class model for accessing and distributing wines and that excels in customer relationships. Many Archangels, however, have expressed concerns over the future challenges, emphasizing that the model to work needs to be somehow small and intimate at the same time. Actually, the problem to solve for NW is how far they can expand without losing the personal touch they have with the customers who want to be involved and feel part of a team.

The results of our exploratory research are to be considered as a first step towards a future analysis that could further investigate the opportunities that arise from consumers acting as investors to support producers, that is of particular significance in sectors characterized by the presence of small producers, such as wine and food, where crowd funding can be an important alternative to bank lending and to selling shares in a stock exchange.

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## COMMUNICATION FOR EDUCATIONAL PURPOSES THROUGHOUT SOCIAL NETWORKS SITES

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### ABSTRACT

Nowadays Social Networks Sites (SNSs) are becoming more and more popular in the communication among University students. Even if the last five years have witnessed an increasing interest in their usage, their educational functions are still limited and not developed just like their potential. The aim of this paper is to assess the usage of SNSs for educational purposes and to evaluate the perception of University students towards it. Despite numerous researches have examined SNSs, a few studies have investigated their educational purpose and evaluated the perception of university students for this scope. This paper offers the opportunity to bridge this gap and to address important prospects. The analysis is carried out through the administration of a questionnaire to 125 University students in Northern Italy. In addition to their general information and usage of SNSs for educational aims, they express their perception on the basis of a 5-points Likert scale. Results show how students prevalently use them to interact with their classmates and not with their professors. This is only an explorative study carried out on a sample limited to University students in Northern Italy but it might be useful to develop important paths of development for SNSs.

**Keywords:** *Social Networks Sites (SNSs); University Students Perception; Educational Tools; Facebook; Likert Scale; Interactive Communication.*

### INTRODUCTION

The ever increasing importance of social networks sites (SNSs) – like Myspace, Facebook, Twitter, etc. - in the communication among University students is particularly due to their interactive and multidimensional features. On the one hand, these tools offer several advantages in terms of saving time, risk and money since they allow for interactivity and cooperation among students as well as students with teachers without meeting in a particular place (Asabere, 2012) while, on the other, they can represent a challenge for students, professors and administrators. Furthermore, they offer several resources and services such as messaging, blogging, group discussion, etc. and students are avid users of these sites (Haneefa and Sumitha, 2011), also because they are user-friendly, student-centered and

student-controlled (Bowers-Campbell, 2008, p. 82). Despite their increasing attractiveness for University, they are prevalently commercially driven: substantially, they are the result of an adaptation by educators and application builders (Weber, 2012). Moreover, even if they have enormous potential (Madge *et al.*, 2013; Schwartz, 2009) with online courses, their educational functions are still limited and not sufficiently developed. The most researches focus their attention on the real usage of SNSs by students and on their impact on their scholar performances but a few studies have investigated their educational aim (Schwartz, 2009; Selwyn *et al.*, 2008) and almost none of them has evaluated the perception of University students for this specific scope. This paper offers the opportunity to bridge this literature gap and to address important prospects. The purpose of this paper is indeed to assess the usage of social networks for educational aims and to evaluate the perception of University students towards this kind of usage and the relative purpose. This study is focused on the highest education sector, i.e., it is carried out in a University (that of Turin, in Northern Italy) and it is performed through a qualitative investigation involving 125 University students. The first part of the paper is devoted to the definition of SNSs, their educational purpose and attitudes of students towards them; whereas the second one investigates their usage for educational purpose and the relative evaluation of perceptions of University students towards them, by highlighting the main consequences they can provoke on the educational system in order to define a new integrative framework of analysis and development.

## **SNSS FOR EDUCATIONAL PURPOSES: A REVIEW OF LITERATURE**

The important topic of SNSs for educational purposes is largely debated in literature and its diffusion is increasing. One out of four highly-educated students in the United States now takes at least one online course during his/her undergraduate career (Allen & Seaman, 2010). As supported by Weber (2012), approximately 75% of all online adults maintain at least one social network profile. SNSs are becoming more and more sophisticated and many operate on a free service model that turns out to be very attractive to educational institutions in developing countries with small education budgets.

Karimi and Khodabandelou (2013) support the idea that SNSs such as Facebook have become popular among millions of users including highly-educated students and they have become a significant part of students' life.

Anyway, researchers seem to have divergent opinions on three fundamental issues like usage of SNSs, their real purpose and perception of SNSs.

With respect to the usage of SNSs, different opinions appear in literature: some researchers support the idea that SNSs could further improve learning and sharing of information among learners and teachers (Ferdig, 2007; Maloney, 2007; Pence, 2007; Simoes and Gouveia, 2008) According to Ellison

(2010) SNSs usage is generally devoted to the management of group projects, the coordination of meetings, chat and message about homeworks, sharing learning experiences and research findings (Hussein *et al.*, 2012); for example, students at the University of North Carolina prefer debating on Facebook versus the standard course management system, listing pre-existing familiarity and user experience as key factors (Stutzman, 2008).

Selwyn (2009, p. 161) shows how students discuss throughout SNSs about five main themes: recounting and reflecting on the University experience, exchange of practical information, exchange of academic information, displays of supplication and/or disengagement and 'banter'.

Yu *et al.* (2010) suggested how social networking of University students with peers and professors could be a way for obtaining information, knowledge, social acceptance and support. In the same way, Kosik (2007) noticed that students use Facebook for academic purposes, particularly to connect people and to get information about assignments while Chu and Meulemans (2008) found that SNSs are used in order to communicate with other students about school, instructors and courses. Professors could use Facebook to facilitate instructor-to-student and student-to-student course communication, manage class projects, answer questions, etc. (Abdelraheem, 2013).

On the opposite way, Mazman and Usluel (2010) and Vivian and Barnes (2010) believe that SNSs are used only for informal learning. This opinion is supported by Hamat *et al.* who, in an important study in 2012, found how the majority of respondents makes use of SNSs to interact and communicate with their peers with the purpose of informal learning.

On the real education purpose and effectiveness of the social networks, there are also controversial opinions. While according to Madge *et al.* (2009; 2013) SNSs are mainly used both as "a social glue" that helps students familiarize with other students, to deepen the knowledge of their interests, ideas and as a potentially useful tool for promoting effective academic practice, several other researchers are diffident towards the use of SNSs for educational purposes (Kumar, 2010; Kennedy *et al.*, 2008; Oliver and Goerke, 2007; Donnison, 2007). A consistent literature found that University students use SNSs prevalently to communicate with family and friends, to pass time and for entertainment (Sponcil and Gitimu, 2012; Sheldon, 2008) and mainly for social purposes (Boyd and Ellison, 2007; Lampe *et al.*, 2008; Madge *et al.*, 2009). Enriquez (2010) shares the same opinion and declares that "the problem is that most people have Facebook or other social networking sites, their e-mails and maybe instant messaging constantly running in the background while they are carrying out their tasks". Additionally, Szwelnik (2008) shows how students express their unease at the idea of their instructors having a presence in what these students consider their 'private personal space'. On the base of all these considerations, the real effectiveness of SNSs for educational purposes turns out to be uncertain.

This suggests that SNSs have the potential to promote cooperative learning but this must be developed testing it to University students so to help us in this scope.

With respect to the perception, there is convergence in literature in supporting the idea of a positive perception of SNSs by students. Someone emphasizes the strict link between SNSs and attitude to academic life: according to Dorum *et al.* (2010) SNSs are associated with positive attitudes to academic, social and personal aspects of students' life; Irwin *et al.* (2012) show how students think that a *Facebook* page could facilitate their learning, by means of an increased interaction with instructors and notifications for course information. Furthermore, Keenan and Shirii (2009) explored how SNSs encourage friendliness through the use of Facebook, Twitter and LinkedIn.

Other researchers associate the use of SNSs with good students' performances: Mazer *et al.* (2007) demonstrate how their usage results in good performances from users in terms of effective learning which has resulted in a positive learning climate among students. Madge *et al.* (2009) noticed that 53% of students who participated in a survey were positive about the use of Facebook for teaching and learning as long as the focus was on administrative matters.

On the other side, Karl and Peluchette (2011, p. 220) notice a negative perception of SNSs by students, maintaining how many of them feel uncomfortable to become friends with teachers and how they aren't so keen of dealing with teachers for educational purposes because they consider SNSs as a social space (Madge *et al.*, 2009, pp. 150\_151).

## METHODOLOGY OF RESEARCH

The present study aims at (1) investigating the usage of SNSs for educational purposes and (2) to evaluate the perception of University students towards this kind of usage and the relative purpose. These objectives are achieved throughout the administration of a questionnaire structured in four main sections to 125 University students: a first part describes general data of university students; the second one investigates their usage of social networks for educational purposes by means of 7 closed-reply questions; a third section provides their evaluation in order to draw future strategies - this part has been obtained throughout a 5-points Likert Scale (1= I completely disagree; 5: I completely agree) that allows for the evaluation of 17 items structured in 4 main dimensions: learning, commitment/motivation, communication with classmates, communication with professors; finally, the very last section proposes a balance about the importance of social networks for learning purposes throughout open questions. The questionnaire has turned out to be a suitable tool for the measurement of this variable: in fact, it shows a high validity of content and reliability, emphasized by a high level (0.894) of the Cronbach's Alpha, that results in a high level of internal consistence of the scale used with the sample of reference.

## **SAMPLE**

The research involved 125 University students (40% male; 60% female) aged between 18 and 35 (86.4 of whom in the range 21-26 years) recruited between October 2013 and November 2013 in Northern Italy. The choice of exploring only perception of students in this age range is dictated by the fact that this range of population is the one using SNSs most easily and can represent a more and more increasing segment for educational purposes if SNSs is able to satisfy its needs. This number of questionnaires (125) constitutes a representative sample for our exploratory research, which aims at a deep understanding the point of view of University students. The sample is made up of students only (and not by professors or administrators) because we want to understand if these tools could be accepted and considered efficient for this purpose before proposing them to subjects probably more reluctant to use them. The qualitative research based on a structured questionnaire supports the emerging of the real motivations at the basis of the use of SNSs for educational purposes. Respondents are University students involved in a process of learning and with a certain knowledge of these tools.

## **ANALYSIS AND DISCUSSION OF RESULTS**

The first purpose (investigating the usage of SNSs for educational purposes) is based on the frequency analysis of the usage of social networks for educational purposes by University students and results confirm its increasing diffusion (Schwartz, 2009; Selwyn *et al.*, 2008): in fact, most University students (61%) uses SNSs for this purpose almost 1-3 times a week and, in terms of usage, the first place is held by Facebook (87.2%) followed by YouTube (4.8%), MySpace (1.6%) and Skype (1.6%). This large diffusion of SNSs for educational purposes confirms what supported by Weber (2012) who emphasizes their attractiveness for Universities – more and more provided with a small education budget - due to the free service model on which they operate. It is also a confirmation of the thinking by Karimi and Khodabandelou (2013), that consider SNSs an important segment in which to invest in the future.

Despite the several possible usages of SNSs, University students prevalently use them in order to interact with their classmates, i.e., to get help on academic subjects from their classmates (48.4%) and to contact their classmates to arrange for group discussions (23.8%).

This confirms what suggested by Yu *et al.* (2010) and Kosik (2007) who describe SNSs as a tool used by students especially to obtain information.

With respect to the interaction with other students/professors, SNSs are considered useful to exchange information about the exam rules (36%) and to discuss class assignments (32%). This is reflected in the results of a study by Hussein *et al.* (2012) who maintain how University students use SNSs for sharing their learning experiences and research findings, getting latest information and developing academic

networks. Similar conclusions are drawn by Kosik (2007) who found how students use Facebook for academic purposes, particularly to connect to people in their classes and to get information about assignments.

University students attribute SNSs the role of facilitator of their learning (Kosik, 2007; Chu and Meulemans, 2008), mostly thanks to participation in general discussions about course topics (38.3%) and throughout an improved interaction with professors and fellow students (21.7%).

In particular, messages (39.2%) and comments (17.5%) result the most used functions of SNSs allowing them to interact better with other classmates in order to discuss and share doubts and information. This reflects results obtained by Ellison in his study in 2010 where SNSs usage for educational purposes was mostly devoted to chats and messages related to homeworks.

With regard to the purpose, scarce results are shown with reference to their utility in the interaction with professors: in fact University students found SNSs useful to contact their lecturers “somehow” (35%) or “just a little” (19.2%). This utility turns out to be very or extremely important only in 43.3% of cases and main functions used are messages (39.2%) and chat (30%). This datum confirms the opinion of Karl and Peluchette (2011, p. 220) that found that many students are uncomfortable with becoming friends with teachers or they prefer not to interact with them for educational purposes (Madge et al., 2009, pp. 150\_151).

These results are further emphasized with respect to the second investigation: in fact, students expressed a quite negative perception of SNSs for educational purposes, supporting data by Karl and Peluchette (2011, p. 220) who found out that several students felt uncomfortable with becoming friends with teachers: in our study, three dimensions (learning, commitment, communication with professors) out of four show the highest percentages at levels 1, 2 than at levels 4, 5. The highest level of negative perception (levels 1 and 2) is registered by the items “I have a better interaction with my professor throughout social networks” (70.5%) and “Using the social network enhances my interest in the subject” (64.2%). This shows a certain reluctance to use SNSs in order to interact with professors confirming what supported by Meulemans and Chu (2006) in one of their researches. We can notice that most respondents make use of SNSs to interact and communicate with their classmates for the purpose of informal learning: the most positive peak is shown by the item “I can share and solve my doubts throughout social networks” (54.9% at levels 4, 5), confirming results of the study carried out by Mazman and Usluel (2010), Vivian and Barnes (2010) and Hussain *et al.* (2012). The single item which doesn’t collect positive results with respect to communication with classmates is “Social networks increase my creativity and interactivity with the class”. These results show how students accept to use SNSs for educational purposes only in the communication with their peers who are

considered as a part of their social circle while they exclude professors/lecturers from it, confirming results of previous researches (Hamat *et al.*, 2012).

*Table 1. Evaluation of perceptions of University students towards SNSs for educational purposes*

	1	2	3	4	5
<b>1. Learning</b>					
Social networks facilitate my learning	10.7	32.2	34.7	14.9	7.4
Thanks to social networks I'm able to learn more concepts about the different subjects	13.2	33.9	38	10.7	4.1
Thanks to social networks I prepare the exams better	24.2	22.5	30	19.2	4.2
Social networks help me reach project objectives	20	30.8	30.8	15	3.3
Using the social networks enhances my interest in the subject	20	44.2	25	7.5	3.3
<b>2. Commitment/Motivation</b>					
I enjoy my time when using social networking tools for educational purposes	16.4	42.6	26.2	12.3	2.5
I would like a higher usage of social networks for educational purpose by professors	10.7	24.6	31.1	21.3	12.3
I'm more interested in committing to course activities because of the use of social networks by professors	14.9	33.1	30.6	16.5	5
<b>3. Communication with classmates</b>					
Social networks increase my creativity and interactivity with the class	10.8	24.2	38.3	20.8	5.8
Throughout social networks I can participate in group discussions about lectures, projects, exams	2.5	16.5	34.7	37.2	9.1
Throughout social networks I learn more about my classmates	8.3	18.2	28.1	35.5	9.9
I can share and solve my doubts throughout social networks	4.1	9.8	31.1	36.9	18
Online discussions help me to develop a sense of collaboration with the class	6.7	20	38.3	26.7	8.3
<b>4. Communication with professors</b>					
I have a better interaction with my professor throughout social networks	36.1	34.4	16.4	9	4.1
Throughout social networks I can get more information from my professors in shorter time	21.3	39.3	21.3	14.8	3.3
The communication between students and professors throughout these tools enforce their relationship	19.7	35.2	29.5	12.3	3.3
Social networks allow me to know my professors better	21.7	28.9	32.5	12	4.8

*Source: personal elaboration.*

Finally, a certain attitude towards SNSs for educational purposes is only expressed with regard to the interaction with their classmates and only limited to particular aims like discussion, exchange of information and cooperation. These results show how SNSs for educational purposes are in a first stage in Italian University and how many efforts should be carried out in order to develop these interesting tools.

## CONCLUSIVE REMARKS

Results show an increasing usage of SNSs by young people (Karimi and Khodabandelou, 2013) who can constitute an important segment to invest in the future but only for peculiar services and functions they are available to accept. In fact, despite SNSs could have a bright future also in the educational field with regard to the interactivity and exchange of information among classmates, their acceptance in the dialogue students-professors is not so consolidated both by students and professors. University students who adopt SNSs for educational scopes consider their utility in order to share information, doubts, etc. overall but they don't consider them as tools capable of easing their learning and their preparation for the exams. This is related to fact that they think professors are not so ready and available to use them for learning purposes.

These data support completely what maintained by Karl and Peluchette (2011, p. 220) who suggested a certain uncomfortableness by students with becoming friends and by (Madge *et al.*, 2009, pp. 150\_151) who found out that students were not very keen to interact with teachers and considered SNSs as a social space.

However, SNSs are well used by University students and may be excellent tools to be integrated into the learning resources of university courses. Results from this study indicate that students are receptive to incorporating SNSs (in particular Facebook) into their academic lives and think they could enhance communication and interaction with their peers (Irwin *et al.*, 2012). In order to develop the use of these tools, in the future it will be necessary to pull down important barriers like the scarce attitude towards their usage by professors/lecturers. In fact, they could really facilitate in the dialogue with lecturers easing their preparation and improving learning at 360° as supported by several authors (Ferdig, 2007; Maloney, 2007; Pence, 2007; Simoes and Gouveia, 2008).

This not-so-positive perception of University students towards SNSs for educational purpose with respect to the three dimensions (learning, commitment, communication with professors) should be viewed as an incentive to deeply understand their motivations and correct possible erroneous scruples they have towards their usage for communicating with professors.

This paper opens possible future implications and developments: first results of this paper should push professors to improve the usage of SNSs - with lectures on YouTube, creation of groups on



Facebook, upload of the videos of lectures, the creation of exercises to solve in groups via SNSs - in order to develop the dialogue with their students. This purposeful behavior by students should be viewed as an encouraging sign to continue on this path, providing always new innovations able to meet or to anticipate their future needs. Furthermore, also the development of appropriate learning strategies in order to encourage newcoming university students to use technology for learning opportunities should be considered (Ellis and Newton, 2009).

At the same time, given the important potential that these tools could have for educational purposes in the future, if these barriers were to be pulled down, teachers should be adequately provided with the time to deal with this level of learning support (Van Doorn and Eklund, 2013). Furthermore, in order to encourage the usage of SNSs by students, important efforts should be carried out in order to improve their security and privacy and protect the misuse of copyrighted materials (Haneefa and Sumitha, 2011).

Finally it has been demonstrated that the mistrust of SNSs has also led to the fact that many teachers have the same feeling of rejection towards technology used by students because in their opinion it interferes with the natural flow of traditional education (Handely 2007). So, whether or not the ways of working, doing research and learning remain on the sidelines of this revolution is up to teachers and the attitudes of students (Vidal *et al.*, 2011).

Although this research offers important suggestions and enrich existent literature on this topic, there are some limitations which should be taken into account. First of all, this research is an exploratory study based on a limited size sample and it finds application only in Northern Italy. In the future, it is possible to further develop this research by extending the same study to professors and analyzing, on a wider sample, the motivations that prevent students or professors from adopting SNSs for educational purposes in order to develop future strategies.

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## INNOVATION IN EXPORT MARKETS: A DYNAMIC CAPABILITY VIEW

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### ABSTRACT

This paper analyzes the influence of technological turbulence, organizational management dynamic capability and operational capabilities for innovation on export market effectiveness. Based on the dynamic capability view, we investigate the effect of technological turbulence on organizational management dynamic capability, and how this latter contributes to leverage operational capabilities for innovation in order to benefit performance in export markets. To test the hypotheses, we carry out a structural equation model, using a sample of 471 exporting manufacturers firms that operate from Portugal. The results demonstrate that technological turbulence is an antecedent factor of organizational management dynamic capability, which in turn has a significant impact on the development of firms' operational capabilities for innovation, specifically innovativeness, innovation strategy, and technological capability. However, the findings only establish that innovation strategy and technological capability have a significant direct effect on export market effectiveness. Implications for scholars and practitioners are discussed along with suggestions for future research.

**Keywords:** *Dynamic capability; Innovation; Export market effectiveness.*

### INTRODUCTION

It is necessary to research more deeply the relationship between dynamic capabilities, innovation, and firms' export market effectiveness (Weerawardena and Mavondo, 2011). As the export environment becomes more dynamic and uncertain, the need to continuously adapt and innovate becomes imperative for the success of industrial firms (Tomiura, 2007, Yam *et al.*, 2004). Innovation is the key strategic tool to improve market position in such complex environment (Chadha, 2009, Lisboa *et al.*, 2011).

The dynamic capability view suggests that, in order to outperform competitors and ensure continuous innovation, firms must possess dynamic capabilities (e.g., Eisenhardt and Martin, 2000, Teece *et al.*, 1997). They allow firms to upgrade or reconfigure operational capabilities (Helfat and Peteraf, 2003, Hill and Rothaermel, 2003, Zahra *et al.*, 2006) in order to address rapid changes in business

environment (Teece *et al.*, 1997). Competitive advantage results not from dynamic capabilities by themselves, but from the configuration of operational capabilities they create (Eisenhardt and Martin, 2000, Helfat and Peteraf, 2003, Makadok, 2001, Zollo and Winter, 2002).

Due to emerging technologies, fast changes in customer needs, and accelerated competition, deploying and understanding dynamic capabilities is important for innovation and export contexts (Danneels, 2002, Gebauer, 2011, Teece, 2007, Winter, 2003). Dynamic capabilities require the creation and assimilation of firms continuous innovation in order to respond to the customer needs and technological opportunities (Teece, 2007). Innovation involves a continuous search for new knowledge that goes beyond the existing knowledge associated with firms' current operational activities (March, 1991).

Dynamic capabilities are an evolving concept (Newbert, 2007, Rindova and Kotha, 2001), which has to be studied as an integrated model that *establishes the connection* between its antecedents and its effects (Hung *et al.*, 2010, Wang and Ahmed, 2007). Investigation in this field focuses particularly on conceptual analyses, while *empirical studies are still* quite sparse (Cepeda and Vera, 2007, Helfat and Peteraf, 2009). In addition, limited research exists about how dynamic capabilities are created, and how they interplay with operational capabilities in order to generate firms' superior value (Weerawardena and Mavondo, 2011, Winter, 2003, Zahra *et al.*, 2006).

Highlighting these gaps in the literature, we develop an approach that bridges dynamic capabilities, operational capabilities for innovation, and performance in export markets. We seek to contribute toward emerging the dynamic capability view, focusing on identifying the components of dynamic capabilities and operational capabilities for innovation, relevant to export market effectiveness.

The article is organized as follows. The next section offers the theoretical foundation and the conceptual framework. Then, we describe the empirical procedures and present the results. Finally, we discuss the most important conclusions, implications and limitations of the findings.

## **THEORETICAL BACKGROUND AND HYPOTHESES**

Innovation capabilities, such as innovativeness, innovation strategy and technological capability are critical for the success of manufacturing firms (Terziovski, 2010, Yam *et al.*, 2010, Yam *et al.*, 2011). They are a kind of special assets that include technology, processes, knowledge, experience and organization (Guan *et al.*, 2006). Innovativeness, innovation strategy and technological capability are related with firm's operational functions, and so they are operational capabilities for innovation (cf., Cepeda and Vera, 2007), that can be further subdivided into specific skills or competences.

Considering that export market and innovation represent a high degree of uncertainty and change, dynamic capabilities are critical for innovation in the export context (e.g., Lee and Kelley, 2008, Lisboa

*et al.*, 2011). Dynamic capabilities enable firms to keep strong and flexible operational capabilities for innovation (Wang and Ahmed, 2007, Zahra *et al.*, 2006). The improvement of operational capabilities to respond to market changes benefits the way firms operate, and help managers to realize how these improvements can be valuable (Cepeda and Vera, 2007).

One important component of dynamic capabilities is organizational management capability (Hung *et al.*, 2010). Organizational management dynamic capability allows to develop operational capabilities (Helfat and Peteraf, 2003, Zahra *et al.*, 2006) through the flexibility and the alignment of internal capabilities with external demand (Álvarez and Merino, 2003, Camuffo and Volpato, 1996). It focuses on improving existing operational capabilities in order to meet customer needs and finally to enhance performance (Helfat and Peteraf, 2003).

In this study, we intend to demonstrate that organizational management dynamic capability is a response to technological turbulence and that it has a significant impact on operational capabilities on innovation (i.e., innovativeness, innovation strategy and technological capability), which, in turn, contribute to superior export market effectiveness. The conceptual model is presented in Fig. 1.

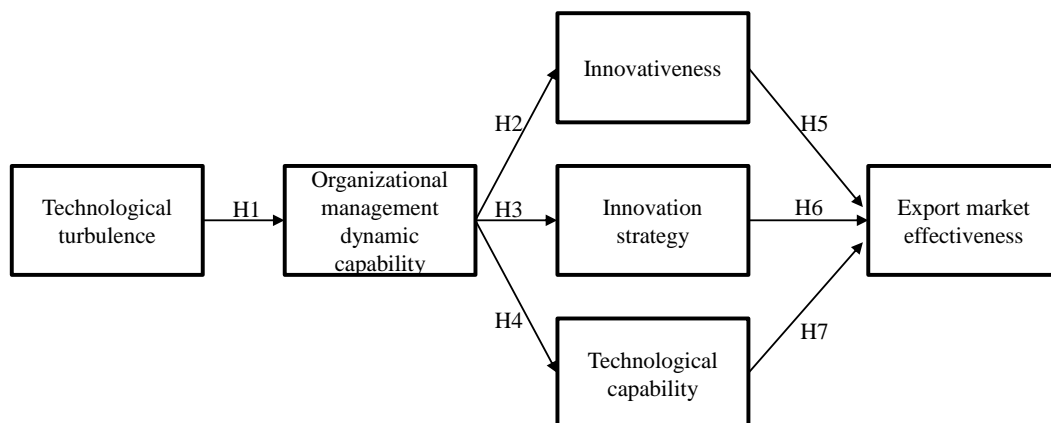


Fig. 1. Hypothesized relationships.

#### *Technological turbulence and organizational management dynamic capability*

Technological turbulence refers to the extension of technological advances in the industry (Kaleka, 2012). The more dynamic and hostile an environment, the greater the probability of firms to demonstrate organizational management dynamic capability in order to adapt to technological turbulence (Teece, 2007, Wang and Ahmed, 2007).

Hypothesis 1. Technological turbulence positively influences organizational management dynamic capability.

#### *Organizational management dynamic capability and innovativeness*

Organizational management dynamic capability keep managers and work teams informed about markets and technologies changes (Camuffo and Volpato, 1996, Teece, 2007). The unexpected situations in the environment, such as customer needs unfilled, or changes in market trends, stimulate

a firms' culture of continuous experimentation of new ideas and procedures (Eisenhardt and Martin, 2000, Jong and Hartog, 2007, Zahra *et al.*, 2006). In addition, the organizational management dynamic capability promotes the knowledge sharing and cooperation between work teams, which leads to synergetic benefits by solving problems that combine this knowledge in innovative ways (Bierly III and Chakrabarti, 1996, Brown and Duguid, 1991). In order to provide solutions to business challenges and problems, managers change routines and develop a culture of innovativeness that is shape to accept high levels of internal change (Teece, 2007, Teece *et al.*, 1997).

Organizational management dynamic capability leads firms to frequently try out new ideas, new ways to do things, and to be creative in their methods of operation, contributing for the development of innovativeness (Figueiredo, 2003, Teece, 2007).

Hypothesis 2. Organizational management dynamic capability positively influences innovativeness.

#### *Organizational management dynamic capability and innovation strategy*

Innovation strategy requires firms to focus not only on internal resources and capabilities but also on external links to the market (Grant, 1991, Poon and MacPherson, 2005). The assessment of external factors must precede the formulation of objectives and competitive methods for innovation (Dess, 1987, Khandwalla, 1976). Organizational management dynamic capability, by continually focus on markets and their constantly changes, enable firms to develop the most suitable innovation strategy (Poon and MacPherson, 2005).

Moreover, the implementation of innovation strategy depends on the extent to which different functional departments share and combine resources for realizing such strategy (Tsai and Ghoshal, 1998, Van de Ven, 1986). The interaction between the various functional departments implies to cultivate good working relationships, and accommodate multiple and sometimes even conflicting viewpoints (Cheng *et al.*, 2010, Clercq *et al.*, 2008, Luca and Atuahene-Gima, 2007). Organizational management dynamic capability promotes the communication, coordination, knowledge sharing, and exchange between different functional departments, and thus decrease the risk of potential conflicts (Gatignon and Xuereb, 1997, Xie *et al.*, 1998). Hence, firms *with* organizational management dynamic capability *are* better prepared to implement and adopt tools and techniques related to innovation strategy (Nijssen and Frambach, 2000).

Hypothesis 3. Organizational management dynamic capability positively influences innovation strategy.

#### *Organizational management dynamic capability and technological capability*

A central component of technological capability is Research and Development (R&D) activities (e.g., Kyläheiko *et al.*, 2011, Roper and Love, 2002, Zahra, 1996). R&D is the most important intangible expenditure in innovation (Evangelista *et al.*, 1997). Technological capability, such as extensive R&D



activities and projects, represent the investment in the creation of technological knowledge that leads to improvement and successful innovation (e.g., Renko *et al.*, 2009, Wang and Kafouros, 2009, Yam *et al.*, 2010, Yam *et al.*, 2011, Zhou and Wu, 2010).

Organizational management dynamic capability takes a critical role in the development and accumulation of technological capability (e.g., Figueiredo, 2003, Wang and Ahmed, 2007). This dynamic capability promotes the *intra-firm knowledge* dissemination, and ensures the creation of new technological knowledge through the continuous interaction of several functional viewpoints and interests (Figueiredo, 2003, Zhou and Wu, 2010). In addition, it stimulates employees' active involvement in internal activities, which leads them to understand the principles underlying the technology and to move on to new actions in response to future market changes (Figueiredo, 2003, Sanchez, 1995). Hence, organizational management dynamic capability leads firms to invest heavily in certain R&D projects, to use the long term know-how in such projects, and to develop superior technological capabilities (Bierly III and Chakrabarti, 1996).

Hypothesis 4. Organizational management dynamic capability positively influences technological capability.

#### *Innovativeness and export market effectiveness*

Innovativeness is an important determinant of various performance outcomes, including market position (e.g., Hult *et al.*, 2004, Rhee *et al.*, 2010), financial position (e.g., Calantone *et al.*, 2002), and firm value in the stock market (e.g., Rubera and Kirca, 2012). Firms with a higher culture of innovativeness develop a superior competitive advantage (Hult and Ketchen, 2001), which enable them to reinforce outcomes from it (Damanpour, 1991, Hurley and Hult, 1998). Hence, innovativeness is likely to result in superior export market effectiveness (e.g., Calantone *et al.*, 2002, Hult *et al.*, 2004, Rhee *et al.*, 2010).

Hypothesis 5. Innovativeness positively influences export market effectiveness.

#### *Innovation strategy and export market effectiveness*

Prior studies have demonstrated that innovation strategy has a great influence in growth and organizational performance of manufacturing firms (e.g., O'Regan *et al.*, 2006, Poon and MacPherson, 2005, Terziovski, 2010). Innovation strategy strengthens behaviors and promotes internal cooperation in the development of innovative activities that, in turn, allow firms to increase their performance (e.g., Akman and Yilmaz, 2008, Hart, 1992). Firms create innovative products that stimulate costumers and outperform competitors, expand their existing markets or create new ones, and achieve distinctive market positions (He and Wong, 2004, Lawson and Samson, 2001). Hence, innovation strategy is expected to enhance export market effectiveness.

Hypothesis 6. Innovation strategy positively influences export market effectiveness.

*Technological capability and export market effectiveness*

Technological capability represents the firms' internal effort to create a stock of scientific and technical knowledge (Kyläheiko *et al.*, 2011, McEvily *et al.*, 2004, Quintana-García and Benavides-Velasco, 2008), that leads to more efficient processes for developing and testing new products and ideas (Criscuolo *et al.*, 2010). Firms with superior technological capability are more innovative (e.g., Martínez-Román *et al.*, 2011), and have a bigger performance (e.g., Coombs and Bierly, 2006, Ortega, 2010). Technological capability allows firms to develop and introduce new products in the market (Renko *et al.*, 2009), create differentiated and high quality products (Yam *et al.*, 2010), and have more competitive prices by reducing production cost (Kafouros *et al.*, 2008, Yam *et al.*, 2010). Hence, technological capability improves competitiveness and leads to superior export market effectiveness (Yam *et al.*, 2004).

**Hypothesis 7.** Technological capability positively influences export market effectiveness.

## METHODOLOGY

This study was conducted in 2012, using a sample of Portuguese exporting manufacturers. An online questionnaire was the basis of the data used to test the model. The final sample size was 2740 firms. We obtained 471 valid questionnaires, which corresponds to a response rate of 17%. This is a very satisfactory response rate, given that the average top management survey response rates is in the range of 15% to 20% (Menon *et al.*, 1996). Our model includes 35 observable indicators, which determines a 13:1 ratio of sample size to number of free parameters (see Bentler, 1989 in Westland, 2010).

## RESULTS

In this model, each item was restricted to load on its priori specified factor, with the factors themselves allowed to correlate with one another. The overall chi-square for this model is significant ( $\chi^2=286.41$ ,  $df=137$ ,  $p<0.00$ ). Four measures of fit were examined: the comparative fit index (CFI=0.98), the incremental fit index (IFI=0.98), the Tucker-Lewis fit index (TLI=0.97) and the root mean square error of approximation (RMSEA=0.048). The results suggest that the scale measures were internally consistent, able to provide a good fit of the factor model to the data.

The conceptual framework depicted in Fig. 1 was tested using structural equation modeling. The results suggest a good fit of the model to the data ( $\chi^2=429.97$ ,  $df=145$ ,  $p<0.00$ ,  $\chi^2/df=2.97$ , CFI=0.96, IFI=0.96, TLI=0.96, RMSEA=0.065).

Consistent with H1, technological turbulence positively influences organizational management dynamic capability ( $\beta=0.41$ ,  $t\text{-value}=6.78$ ). In line with H2, H3 and H4, organizational management dynamic capability has a significant positive impact on innovativeness ( $\beta=0.66$ ,  $t\text{-value}=9.18$ ),

innovation strategy ( $\beta=0.72$ ,  $t\text{-value}=9.21$ ), and technological capability ( $\beta=0.66$ ,  $t\text{-value}=9.27$ ). Contrary to expectations, no significant association is found between innovativeness and export market effectiveness ( $\beta=0.04$ , n.s.), thus H5 is rejected. Finally, consistent with H6 and H7, innovation strategy and technological capability have a significant positive impact on export market effectiveness ( $\beta=0.18$ ,  $t\text{-value}=2.66$  and  $\beta=0.17$ ,  $t\text{-value}=2.63$ , respectively).

## DISCUSSION AND IMPLICATIONS

This article advances understanding on dynamic capabilities, specifically organizational management dynamic capability, and operational capabilities for innovation, namely innovativeness, innovation strategy and technological capability, and their impact on export market effectiveness, through the application of the dynamic capability view in the export context. In this sense, we clarify the nature of organizational management dynamic capability, by explaining its measures, antecedent and effects. We empirically test innovativeness, innovation strategy and technological capability as the output of organizational management dynamic capability, and the indirect impact of organizational management dynamic capability on export market effectiveness.

Taking into account that nowadays industrial exporting firms face a constantly changing environment, characterized by high technological turbulence, the results highlight the need for managers to cultivate organizational management dynamic capability in order to respond to rapid changes in technology. Managers' examination of technological breakthroughs in the industry influences the development of the necessary flexibility to coordinate and improve operational capabilities for innovation, and to align internal capabilities with customers' needs. This way, firms are able to articulate more and upgrade innovativeness, innovation strategy and technological capability.

The study highlights the importance of firms' organizational management dynamic capability in the export context, with an environment open to global competition and characterized by rapid technological changes. Organizational management capability is a dynamic capability that enables firms to respond to technological turbulence while developing the flexibility required for upgrading operational capabilities in order to meet the customers' needs.

This study takes the position that innovation strategy and technological capability are key operational capabilities for achieving a superior performance in export market. When managers develop innovation strategy and technological capability to enhance market performance effectively, they should also develop organizational management dynamic capability in order to improve them. Firms should look for synergies between organizational management dynamic capability and innovation strategy as well as technological capability in order to survive and grow in export markets.

## LIMITATIONS AND DIRECTIONS FOR FUTURE RESEARCH

This study presents some suggestions for future research regarding the theoretical and methodological limitations.

We conceptualized organizational management dynamic capability using three measurement items. Other elements of organizational management dynamic capability could exist and be measure. Research may continue by consulting other scholars' interpretations of dynamic capabilities and/or by using a multidimensional construct of dynamic capabilities. Moreover, it is probable that different industries have different dynamic capabilities. This is also a subject that worth further investigation.

Future research may consider other types of operational capabilities for innovation, such as manufacturing, learning, and resources allocation capabilities, among others. It would be also interesting to analyze the impact of organizational management dynamic capability on these other capabilities.

Longitudinal data may improve this type of investigation, analyzing how organizational management dynamic capability can improve operational capabilities for innovation over time. Because the firm's environment is constantly changing, it is important that future research assess the extent and speed of change that organizational management dynamic capability enables. The cross-sectional data used in this study may not be adequate to observe the short and long-term impact of organizational management dynamic capability on operational capabilities for innovation.

Future studies are encouraged based on samples from various countries, since we only used firms based in Portugal. However, investigation that examines dynamic capabilities in the exporting field was developed with single-country samples (e.g., Chadha, 2009, Lisboa *et al.*, 2011).

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## ASSESSMENT OF THE BRAIN REACTIONS TO SOUND AND PICTURE IN ADVERTISING

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### ABSTRACT

In this exploratory research, the main objective was to study the influence of sound and picture in advertising, by observing the neural responses of subjects from both genders. The EEG was recorded for 11 female and 11 male participants, during the presentation of 2 television ads.

A local frequency analysis pointed key moments of the ad. Also, a sLORETA analysis showed that during the first second, one of the ads triggered greater neural activation than the other, for both genders, especially in areas related with visual and auditory integration, as well as specific decision-related structures.

It was concluded that sound and picture amplify each other's effects in advertising. Also, a local frequency and a sLORETA analysis can successfully point to effective moments of a marketing campaign.

**Keywords:** *Neuromarketing, EEG, TV advertisement, Wavelet Transform and sLORETA*

### INTRODUCTION

Neuromarketing is an emergent field, which consists in "looking at consumer behavior from a brain perspective" (Morin, 2011). Basically, Neuromarketing is the combination, as the name implies, of Neurosciences and Marketing, providing to the second the powerful machinery and insights from the first.

A number of marketing agencies have since started using neuroimaging tools, to better understand the commercial problems of their clients. Most scientific works establish the definition of neuromarketing, as "a field of study concerning the application of neuroscience methods to analyze and understand human behavior related to markets and marketing exchanges" (Babiloni, 2012).

Neuromarketing is able to provide directly obtained information, about the neural reactions of individuals (Lee et al., 2007). It can even be suitable to judge a product before it even exists, as its fast execution could mean that a concept was swiftly tested, and if the results didn't meet the standards,

the manufacturer could abandon that concept early on, in its production process (Ariely & Berns, 2010).

Numerous techniques, used in a neuroscientific context, can be transported for neuromarketing, like electroencephalography (EEG), functional magnetic resonance imaging (fMRI), facial electromyography (EMG) or the measuring of the galvanic skin response (Hess, 2009; Mendes, 2009).

One of the most important analysis of the EEG is that of the waveform. From a waveform perspective, an assessment is made on the basis of grouping the different components, according to the frequency interval to which they belong. So, there are five main brain wave patterns: alpha, beta, delta, theta and gamma.

Alpha waves are generally found in the EEG's of most adults, when they are awake and in a quiet, resting state of thinking. Beta waves may replace alpha waves, in a case of a subject's attention being directed to a specific type of mental activity. Theta and Gamma waves play an important role in memory activation. Theta waves also play a role in emotional processing and gamma waves in attention. Delta waves are characteristic of specific sleep stages (Guyton & Hall, 2006).

To make a thorough frequency analysis, the Wavelet Transform was used. The Wavelet Transform gives a local frequency analysis of non-stationary signals (like EEG) over a time interval, decomposing the signal from the time domain to a time-frequency domain. This means that with this method, one can know the evolution of each desired frequency over time.

For a better mapping of the brain activity, a software package (sLORETA) was used. The sLORETA (Standardized Low Resolution Electromagnetic Tomography) software allows a good approximation for the solution of the inverse problem of EEG, that is, to determine the localization of the neuronal generators of the EEG responses. Since brain activity is spatially distributed, and therefore is not simply originated by single point sources, this is a better solution than, for instance, dipole fitting (Pascual-Marqui, 1999), and it depicts these phenomena with the lowest localization error from all the 3D localization methods (Pascual-Marqui, 2002), and a 5 mm spatial resolution (Fuchs et al., 2002; Pascual-Marqui, 2002), which is close to what some fMRI systems are able to offer (fMRI's strongest point is usually the good spatial resolution).

In this research, the focus was on studying the reaction to different TV ads from the same brand and product. EEG will be used to acquire the reactions of the participants, which will be analyzed to better understand factors like feelings, levels of attention and arousal. It will be complemented with a standard consumer questionnaire. The main aims were:

- Verify if a simple experimental paradigm, with only target stimuli, can be reliable for a neuromarketing analysis;
- Attest if neural responses can point to key moments of an ad. If so, recognize when those occur;

- Identify what structures show the most significant differences between different ads;
- Observe the importance of sound in the context of advertisement;
- Analyze the usefulness of methods, like the Wavelet Transform and sLORETA, in Neuromarketing studies.

## METHOD

### Participants

The sample was comprised of 22 subjects (50 % of each gender). All the subjects were right-handed, had normal or corrected vision, and had no diagnosed neurological issues. All the subjects were Caucasian, had the same nationality, and were all young adults with ages between 22 and 28 years old. The sample was selected by convenience, and is comprised of family members, friends and colleagues.

### Paradigm

The paradigm of this experiment consisted in the showing of two different TV commercials, under four conditions: audiovisual form (*Sound & Picture*), with *Sound Only*, with *Picture Only* and with the *Sound Swapped*. Each stimulus was shown six times.

The two commercials advertised the same product, a women's perfume called J'adore, produced by Dior (Figure 1). Both ads star Charlize Theron, a famous actress.

The paradigm was structured in E-Prime®.



Figure 2. Image of the protagonist during the first commercial and second commercial, respectively.

### Questionnaire

A questionnaire was applied immediately after the experiment, to complement the Neuromarketing data. It assessed participant information, brand and product opinion, opinion on the first ad and opinion on the second ad, and was designed with Qualtrics®.

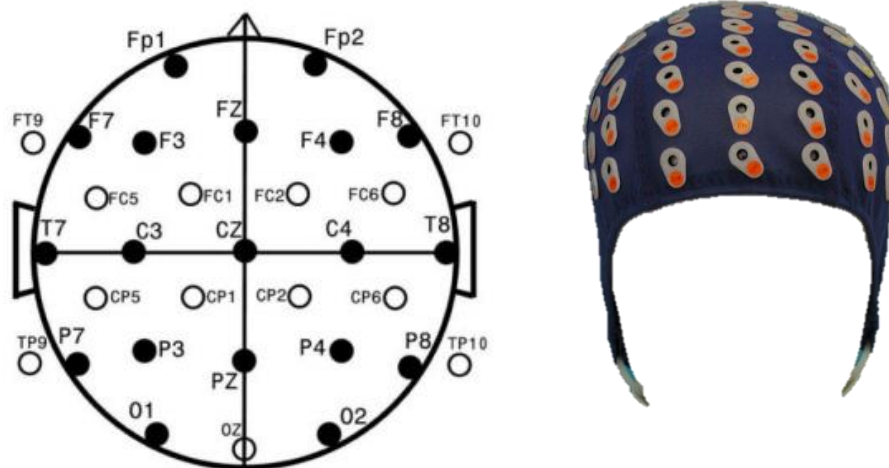
Using ANOVA and Kruskal-Wallis, the responses of both genders were compared, to observe if there were significant differences, with  $\alpha = 0.05$ .

Repeated measures ANOVA and Friedman tests were computed to verify any significant differences between the two ads, again with  $\alpha = 0.05$ .

### Equipment

The amplifier used for all the acquisitions, was a BrainVision® QuickAmp 72, which allowed the amplification of the very small currents obtained through the EEG system. The sampling rate used for all the acquisitions was 2000 Hz, to prevent aliasing.

The electrode cap used here follows the 10-10 system, with 63 Ag/AgCl electrodes and is made of a spandex-like material. An additional pair of electrodes was used to obtain the vertical components of eye movements, to remove those artifacts.



**Figure 3.** On the left, a schematic of the electrode placement used in a 10-10 system is presented. On the right, the picture presents an example of a similar system.

### Signal processing

A wavelet transform was obtained for each stimuli. This resulted in the normalized powers of the theta, alpha, beta and gamma bands, over time, from each repetition of the stimuli. The averaged EEG data of each subject was obtained and exported, for use in sLORETA. The frequency data was grand-averaged across subjects.

The sLORETA data was used for t-tests over time ( $\alpha=0.05$ ), to detect moments where there were significant differences between stimuli, and then their LORETA transformed data was tested, to compare the average neural activity in those intervals.

## RESULTS

### Questionnaire results

Most of the ad based questions didn't present significant differences between genders. The question about whether the protagonist was well known, was the only exception, and shown that for both ads, females remembered her the most.

In the case of brand and product based questions, the results show a greater experience with Dior products in general, and J'adore in particular, from women, as well as a greater desire to acquire and use them in the future, and a higher interest in this kind of product altogether, which, given the nature of the product, was to be expected.

There was only one item where differences were significant: the song of the second ad was better known from outside of the context of the commercial, than the song of the first ad. Also, the standard deviations and means, for the question about the possible improvement of the opinion on the product, were exactly the same.

### Time-frequency results

A strong bilateral theta activation occurred, over the anterior region of the frontal cortex, for almost the whole duration of the ads. When the sounds of both ads were changed, both presented very similar patterns of activation, however they presented less medial prefrontal theta activity than their original counterparts. Still, these theta peaks covered a good portion of the commercial. Figures 2 and 3 present two examples of the results obtained in this analysis, over the frontal region of the brain.

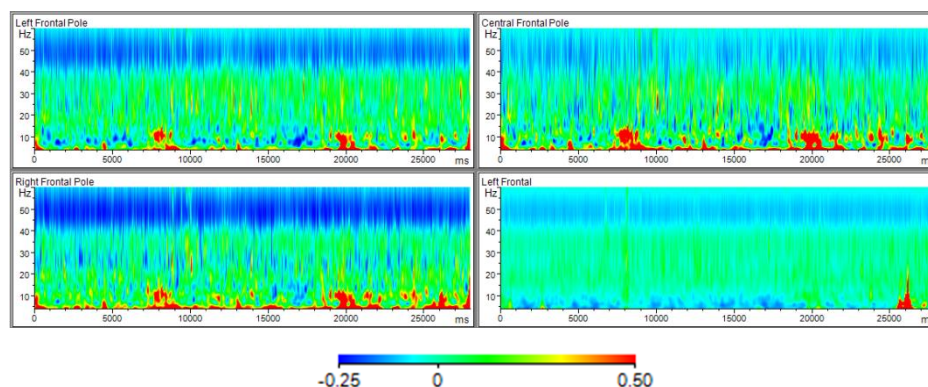
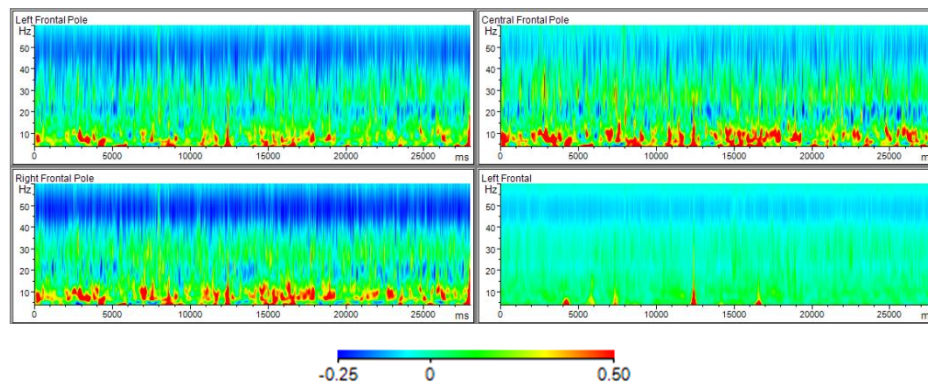


Figure 4. Grand averaged power spectrum of the 22 participants, for the whole duration of the first ad, when sound and picture were presented. The x-axis represents time (0 to 28 seconds), the y-axis represents the frequency domain (4 to 60 Hz) and the colors represent the spectral power (-0.25 to 0.50  $\mu\text{V}^2$ ).



**Figure 5.** Grand averaged power spectrum of the 22 participants, for the whole duration of the first ad, when sound and picture were presented. The x-axis represents time (0 to 28 seconds), the y-axis represents the frequency domain (4 to 60 Hz) and the colors represent the spectral power ( $-0.25$  to  $0.50 \mu V^2$ ).

In both *Sound Swapped* stimuli, frontotemporal theta peaks were observed. For instance, there are two clear theta frontotemporal synchronizations, for the first ad, that come right around the same time as two lines of the monologue, that in this case cannot be heard (“Gold is Cold” and “Don’t Pretend”). There are similar peaks in the *Sound Only* condition of the same commercial over the 6<sup>th</sup>, 12<sup>th</sup> and 13<sup>th</sup> seconds, which actually are right around the time of the first and third lines of monologue.

In the first ad, the *Picture Only* present right temporoparietal peaks, very close to three key visual moments of the ad, where a close up to the actress is shown: first, the moment when she takes the net off her hair; second, when she starts taking off her bracelets and finally, when she starts unzipping her dress.

Several theta occipital peaks were elicited for the multiple conditions, including those with no picture or no sound. The *Sound Swapped* conditions and *Picture Only* condition, for the first ad, did not generate these spikes.

The two conditions that held more constant alpha activity, especially over anterior frontal regions and the occipital cortex, were the two *Sound Only* conditions. The first commercial presented considerably more alpha synchronizations than the second one, for the whole set of conditions. Yet, in most moments that alpha oscillations have a power increase, it was most often followed by a decrease and increase in beta activity.

For the first ad, all the conditions present increased alpha activity after the 20<sup>th</sup> second. In the case of the first condition for this ad, this happened systematically until the end of that stimulus, while for the two remaining conditions, containing picture, that was not as significant, but still, some beta activity spikes followed alpha synchronizations/desynchronizations. A beta peak occurred around the 23<sup>rd</sup> second, another at the 24<sup>th</sup> second when the perfume is shown and another at the 27<sup>th</sup> second, when

the brand name is shown and also mentioned by Theron. Also in the Picture & Sound condition, the other main peaks seemed to be around the time that Theron takes off her necklace and when she took off her bracelets.

Still, the biggest difference between that first condition and the other two that showed picture for the first ad, was that they show more alpha synchronizations/ desynchronizations, coupled with beta synchronizations right up to the 8<sup>th</sup> second.

The *Picture Only* condition presented more beta synchronizations than any other for the same ad. Almost all of the beta synchronizations that occur in this condition have also been observed in either one, or both the *Sound & Picture* and *Sound Swapped* conditions.

Only the Sound Swapped condition showed increased beta activity for the first 4 s of the second ad. For this condition, there were also beta peaks around the time that Theron is shown again, this time getting dressed, and from the moment she enters the catwalk, up to when she is filmed from behind. Finally, there were other beta synchronizations when the bottle of J'adore is shown, when its name appears and when the Dior name appears.

For the Sound & Picture condition of the same ad, the key beta peaks occurred for the close-up to Grace Kelly, the first moment where Marilyn Monroe is shown, in which she mentions the brand name, when Charlize Theron enters the catwalk (where the Dior name was strategically in the background), when the bottle of the perfume appears and finally when its name fades into the screen. Most gamma peaks over the prefrontal cortex, occurred around the same time as beta peaks. The only exceptions happened in the Sound & Picture condition of the first advertisement, around the 17<sup>th</sup> second, right after one of the lines of the monologue ("Feel what's real"), and on the 3<sup>rd</sup> second of the second ad, for the same condition. The *Sound Only* condition of the first ad elicited an exceptionally high amount of synchronizations in this frequency band, over the temporal lobe, for the first half of the commercial.

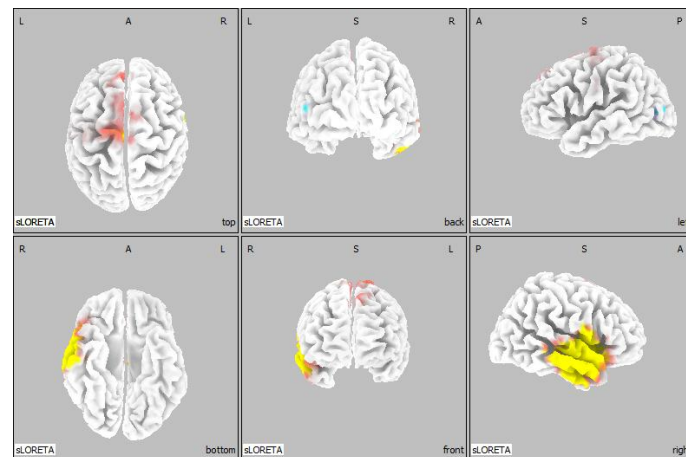
#### **sLORETA**

The interval from 663 ms to 694.5 was observed to be the time in which larger differences occurred between the first and second ads, in their first second, for female subjects. Then, a t-test with spatial localization was performed over that interval, in which the following regions were identified as having differences of the type A(Ad2)>B(Ad1):

**Left Hemisphere:** Medial Frontal Gyrus Brodmann Area (BA) 6;

**Right Hemisphere:** Precentral Gyrus (BA 4, 6, 43, 44), Inferior Frontal Gyrus (BA 44, 45, 47), Insula (BA 13), Superior Temporal Gyrus, (BA 13, 21, 22, 38), Fusiform Gyrus (BA 20), Inferior Temporal Gyrus (BA 20, 21), Temporal Lobe Sub-Gyral (BA 21) and Middle Temporal Gyrus (BA 21, 22).

There were also differences of the opposite type, in the Middle Occipital Gyrus (BA 19).



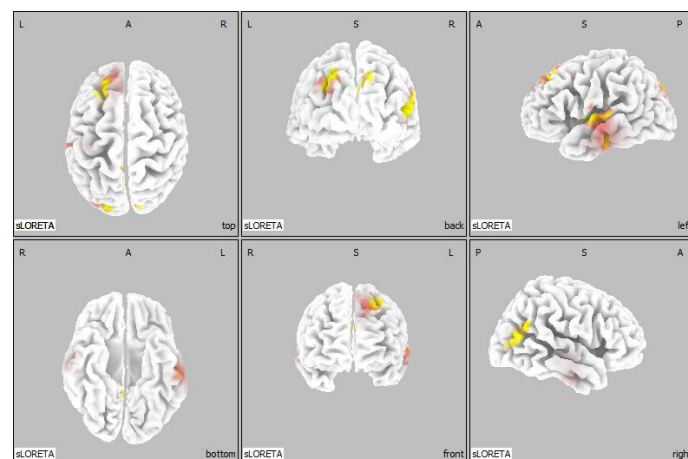
**Figure 6. 3D mapping of the significant differences between the two ads, for the 11 female subjects.**

**Yellow and red represent differences of A > B type, and blue of the B > A type.**

In the case of men, the interval between 538.5 ms and 572.5 ms was where the most significant differences were found in the first second. All differences were of the type A(Ad2)>B(Ad1), and occurred in the following regions:

**Left Hemisphere:** Superior Frontal Gyrus (BA 8), Middle Frontal Gyrus (BA 8), Posterior Cingulate Gyrus (BA 30), Limbic Lobe Sub-Gyral (BA 31), Precuneus (BA 7, 19, 31), Superior Temporal Gyrus (BA 21, 22, 42), Middle Temporal Gyrus (BA 21), Transverse Temporal Gyrus (BA 42) and Cuneus (BA 7, 19, 30);

**Right Hemisphere:** Cingulate Gyrus (BA 31), Precuneus (BA 7, 19, 31), Supramarginal Gyrus (BA 40), Superior Temporal Gyrus (BA 22, 39), Middle Temporal Gyrus (BA 39), Cuneus (BA 7), Precuneus (BA 31) and Middle Occipital Gyrus (BA 19).



**Figure 7. 3D mapping of the significant differences between the two ads, for the 11 male subjects.**

**Yellow and red represent differences of A > B type.**



## DISCUSSION

In terms of frequency analysis, Sammler *et al.* (2007) argued that pleasant music generated increased theta activity, over the frontal midline, which was observed, as there was a strong activation over the anterior region of the frontal cortex, for almost the whole duration of the ads, except for the two muted videos. These have been linked to emotional processing. The frontotemporal theta peaks, found in both Sound Swapped videos, were originated from the perception of portions of their sound as deviant (Choi *et al.*, 2013). Moreover, the right temporoparietal theta peaks were generated by visual memory encoding processes. Bilateral activations of this kind were due to retrieval (Sauseng *et al.*, 2004). Numerous occipital theta peaks, elicited for the multiple conditions, occurred due to episodic memory retrieval (Lee *et al.*, 2010).

The constantly large alpha activity in both *Sound Only* stimuli occurred because of the lack of visual input (Toscani *et al.*, 2010). Some subjects actually reported after the end of the experimental procedure, that they had closed their eyes during these. As was verified in this study multiple times, alpha synchronizations and desynchronizations have been seen to work as an anticipatory response, when followed by beta activity peaks (Babiloni *et al.*, 2006). Besides, the beta rhythm is a mark of increased processing by cortical structures, and so, a good indicator of attention.

Finally, the gamma band plays a role in attention and memory (Jensen *et al.*, 2007). The gamma synchronization in the prefrontal region, which occurred at the 3<sup>rd</sup> second of the second ad, was probably due to the opening notes of the song that accompanies the ad, and the image of the protagonist entering the dressing room. Also, the multiple temporal peaks in this band, for the *Sound Only* condition of the first ad, point to an increase in auditory perception (Crone *et al.*, 2001).

With the sLORETA analysis, it was seen that men and women had inverse reactions to both ads in the middle occipital gyrus, which were related with differences of spatial attention (Mangun *et al.*, 1998). Females had higher levels of spatial attention for the first ad, probably because of visual elements like the protagonist's dress, while males were more focused on the second one. The right inferior frontal gyrus is stimulated when important attentional elements are perceived (Hampshire *et al.*, 2010), and the left medial frontal gyrus is connected with approach behavior (Talati & Hirsch, 2005). On the other hand, the right fusiform gyrus and inferior temporal gyrus, which were more active in the second ad for females, are structures involved in face processing (Gross, 2008; Rossion *et al.*, 2012). This was perhaps caused by the faces of photographers shown in the beginning of the stimulus. Both genders had increased processing in the superior and middle temporal gyrus, in areas that play important roles in musical processing and voice recognition, caused by prior memories of the song of the commercial, also verified in the questionnaires. Men, also, presented increased activation of the transverse temporal gyrus (BA 42), which is an area of auditory integration too.

The fact that men presented more activation of BA 8 for the second ad shows a more successful memorization (Astolfi *et al.*, 2008). The precuneus (BA 7) and the supramarginal gyrus (BA 40), also more active in this case, are responsible for memory retrieval, showing that not only was the memory formation more effective here, but so was memory retrieval (Lundstrom *et al.*, 2005). In the limbic lobe, there was also an increased activation of the posterior cingulate gyrus, important for evaluative judgment (Zysset *et al.*, 2002).

## CONCLUSIONS

During this exploratory research, we used a simple paradigm with no standard stimuli, to approximate the experiment to a natural watching of TV commercials. It proved to be effective to produce relevant frequency and LORETA data.

The frequency analysis and LORETA analysis were vital to obtain pertinent results for this study. The wavelet transform and the sLORETA technique allowed the study of the neural responses over the whole ad and a good localization of the sources of those responses for specified time intervals.

Thanks to the wavelet transform, it was possible to pinpoint moments, where memory, attention and emotional processes were particularly elicited. This was observed for the first commercial in moments where either the brand, or the product, were presented, as well as in moments where the protagonist is highlighted. In the second commercial, besides these moments, times where other famous figures appeared also generated greater responses.

Using sLORETA, differences in the initial responses, from one commercial to the other, were verified mainly in auditory processing regions, in the temporal lobe, and regions related with selective visual attention, for both genders. Also, structures in the frontal and parietal lobes related to memory processes, in the occipital and temporal lobe for face specific processing and zones of the limbic system related with attitude formation.

It was observed that replacing the sound of one ad with the other did change the attention responses considerably, even though it did not clearly modify the preference of one song over the other. Also, sound alone seemed to be much less effective to catch the subjects' attention when compared with the *Sound & Picture* condition, and in some cases it was even perceived as deviant by the subjects. So, from the point of view of the advertisers, reusing the image of an older ad with new sound effects seems to be less effective.

Moreover, picture by itself also presented loss of some of the effects found in the *Sound & Picture* condition like emotional reactions, and the use of just sound seemed to lose the attention of the subjects. It seems that these two elements amplified each other, as the combination of both did not just generate a superposition of their individual reactions, but also, generated more constant emotional

reactions and more attention peaks, which, due to their larger average amplitudes show that these reactions occurred more consistently across subjects. So, a TV commercial seems to be generally more effective in creating involvement, than a radio commercial, for instance.

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## THE SEGNIFICANT VALUE OF INTELECTUAL CAPITAL IN TERMS OF ITS EXPOSURE

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### ABSTRACT

Revolution of knowledge and the knowledge-based economy have as foundation the knowledge with their role in the contemporary economy.

In recent decades it has been noted and taken into account the favourable evolution of economic importance, information technology, human capital, economic processes, capabilities and skills of the organization as organic factors related to knowledge.

Intellectual capital is renowned as a vague and somehow confusing concept, due to its boundaries that are not well-defined, and interact more often with the concept of human capital.

Due to the development of modern society and its implications, the human factor continues to be a pawn in the process of production, a fact proven by his creative ability and responsiveness to self-development. The human factor, the qualification of the labour force and its rational use is the vital elements of adaptation to the effects of transformation of science in direct production, force the pace and extent of economic development, and exploitation of natural resources.

One of the key elements that support the profitability of the company is represented by intellectual capital, which is why it increases its significant level.

The Organization for Economic Cooperation and Development (OECD, 1999) describes the "intellectual capital" as the economic value of two types of intangible assets relating to a company, such as: organizational or structural capital and human capital.

Globalization and the growth of technological change have led to the creation of a high performance workplace. In this environment, intellectual capital is and remains the foundation of our success.

**Keywords:** *intellectual capital, value, human capital, exposure, knowledge based economy, structural capital, external capital, internal capital.*

## INTRODUCTION

As time and technology develops and resizes permanently, in a very short time, the theoretical and practical concepts of the economy are being redefined.

Due to these developments, the results of intellectual work are the ones that prevail for each nation.

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Therefore elements such as scientific and technological research, education employment, sophisticated software, advanced telecommunication and electronic finances have become key sources of labor tomorrow, but nothing is more important than knowledge organization itself.

The New Economy is an economy dominated more global influences and speed, often in real time communications and information, regardless of distance. Basic features are globalization and digitization, which gives intangibility international transactions, both trade and direct investment. It is characterized by the appearance of new types of companies, new industries and the provision of services (Marian Covlea, 2010).

On the basis of the knowledge revolution, knowledge-based economy, is a key part in the knowledge that you have them in the contemporary economy (Cristina Burghilea, 2012).

Knowledge means the cumulative and aggregate inventory data and information, but also skills arising from their use by the receiver. Skills depend on the intellectual capacities (perception, judgment) of the receiver, and the main feature of knowledge (which is coming out in preference to the data and information) is their ability to generate added value through their appropriate use.

We live through excellence in a world dominated by intangible services. Any economic resource can no longer be harnessed properly without the contribution of intangible investment.

The intellectual capital of an organization is made up of human capital (*know-how of its employees*) and its structural capital (*organizational and intellectual property*). In other words, its main ingredients are human capital (which is the potential value of the company assets), intangible assets and intellectual property.

A good human capital management might create intangible value for the company.

Nowadays intangible assets based on intellectual capital and raw materials are represented by knowledge and information.

## FEEDBACK ON THE VALUE OF INTELLECTUAL CAPITAL

In today's competitive environments has proved that our creation of value can be retrieved in a company's intellectual capital, to the disadvantage of physical and financial capital.

According to the accounting-financial studies conducted by the companies listed on the stock exchange it can be observed and documented the same significant gaps permanent existing between the book value of accounts of organisations and their market value (Cuganesan et al., 2006). In support

of this hypothesis is also the analysis made available to the public by the consulting firm Accenture, which indicates that, for the intensive and detailed knowledge of the company, its assets and tangible resources include usually between fifteen and twenty-five percent of the value of the company (Ballow et al., 2004). The same study shows that that most of the companies listed in the United States of America, expectations of future increase in value (as opposed to current incomes) comprise nearly 60 percent of the current value of the company. Therefore, the adoption of a formal framework to facilitate the reporting of intellectual capital is a way for businesses to identify explicitly, auditing and managing intangible sources of value creation and their communication both internally and externally (Petty et al., 2009).

## THE PRESENTATION OF INTELLECTUAL CAPITAL

Intellectual capital is made up of stocks and knowledge flow available within an organization. They can be considered as intangible resources, tangible resources that together form the market value of a business.

Intangible resources are defined as factors other than financial assets and physical processes that contribute to generating value of a company and its control (Ion Anghel, 2008).

The multiplicity of definitions and approaches of this concept on the one hand show their importance, but at the same time, the difficulty of expressing something as "untouchable".

*"Intellectual capital is intellectual material - knowledge, information, intellectual property, experience - that can be used to create wealth"* (Stewart, 1997).

Another definition might be rendered as follows: *"Intellectual capital means intellectual material which signifies was formalized, captured and used so produces an asset of far greater value"* (Stewart, 1997:67).

In other words, intellectual capital encompasses everything that every employee knows in a company and can be used to develop its competitive capacity.

Most times this term was associated with a dynamic intangible resources and activities that underpin sustainable competitive advantage of organizations, but both theoretically and practically this form did not contain the essence of terminology.

Intellectual capital may include potential knowledge such as: customer list, benefit from contracts, intellectual input of employees or management processes.

Nowadays the concept of intellectual capital is considered abstract, but in the economy is defined as *"an estimate of a person's ability to produce income through labor"* (Di Bartolo, 1999), the latter may be the starting point desire for success of a company.

As stated Bontis, intellectual capital is a collection of resources related intangible flows.

In one of his works, Edvinsson, names intellectual capital as a (hidden) of intangible assets that do not often appear in the balance sheet.

Harrison and Sullivan, said that this element is knowledge or science that can be converted into profit (the benefits).

Roos: intellectual capital represents all the knowledge of the companies and the translation of this knowledge into practice through trademarks, patents and other brands.

According to Brookings, the difference dntre inventory value and what someone is willing to pay for it.

According to the literature, we can mention the idea of defining intellectual capital as a product obtained by the combination of technical developments, economic and social, political elections or implied and cultural value system underpinning decisions.

Most of the times it was considered to be "good name" of team leadership in any organization. Expansion of intellectual capital can be achieved if the organization is present innovation and creativity.

Intellectual capital includes four categories of intangible assets, namely:

*a) activ market:* trademarks of market segments, reserve orders (to the extent that the production process can fly), distribution channels, assignment contracts, licensing or franchising etc. Used effectively, the assets of this organization creates competitive advantages in the market;

*b) infrastructure assets:* technology, work methodology, specific techniques that make an organization to function effectively. This type of assets the culture of the organization, its financial structure, databases management systems. These values determine how employees work and communicate with each other, intercompartmental relationships within the organization;

*c) intellectual property assets:* copyright, software patents, industrial designs, trademarks, product, service (industrial, commercial), know-how, technical secrets manufacturing etc. ;

*d) human values:* the professional skills of employees, including experience, ability to state and solve problems, leaders etc. Such values are crucial to the organization because it is expensive to hire, train and maintain them at a high level. Talent and professional skills are in possession of the human factor, not the organization for which he works.

In the case of the Romanian television Company, intellectual capital is playing an extremely important role in the development of the institution and the increase in the value and brand awareness in the audiovisual field. With the investment in intellectual capital, the company will ensure increasing success.

Human capital represented by employees, is subject to a rigorous selection process and subsequent training programs and continuous improvement so that exhibit a high degree of professionalism,



which is consistent with current and future requirements and demands of the market.

The high level of skill and education of personnel ensures competitiveness of Romanian television Society in the field of mass-media by promoting with the help of six television channels: TVR1, TVR2, TVR3, TVR, TVR International News and TVR HD and five Studios (Cluj, Craiova, Iași, Timișoara, Târgu-Mureș) values such as public interest, pluralism of ideas and opinions in conditions of impartiality and promote high standards of ethics and professionalism.

## PRESENTATION OF THE MODELS OF INTELLECTUAL CAPITAL

In the literature there are presented several models highlight the structure of intellectual capital, the best-known highlight patterns of composition of brainpower is presented in the following order.

### THE EDVINSSON MODEL

As a result of the experience of the company Skandia has come to the conclusion that both financial capital and the intellectual part of the market value of a company's intellectual capital is made up of human capital and structural capital, exactly as shown in the following figure.

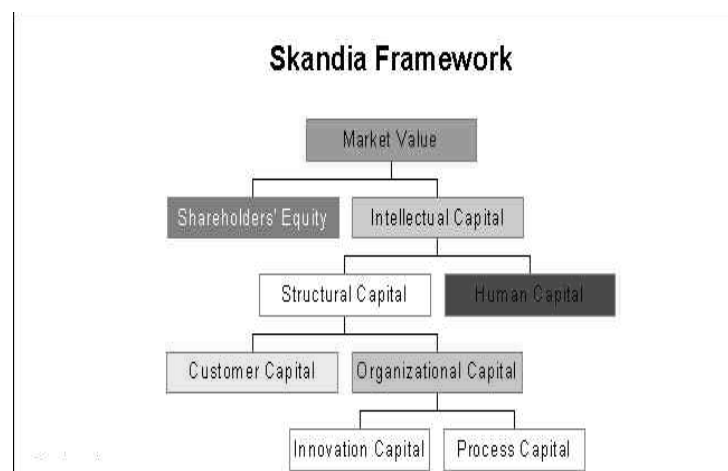


Figure 1 Skandia Framework

(Source: Skandia and adapted from Bontins, 2000)

Given Edvisson's statements, the market value of the company is given the capital and intellectual capital, having the form of presentation:

- ✓ human capital - tacit or explicit knowledge highlighted that people have the ability to generate their knowledge, values, attitudes, skills, know-how, philosophy and culture - useful for the organization's mission;

- ✓ organization capital represented by combining explicit and tacit knowledge, formal and informal structures due to efficiency and effectiveness and develop organizational activity of the

company. It also includes culture (tacit knowledge and informal), structure (formal and explicit knowledge) and organizational learning (renewal of the tacit knowledge and explicit processes, formal and informal);

✓ structural capital includes all the powers and elements of human capital infrastructure support.

## SVEIBY'S MODEL

This model of human capital components defined in the internal structure of company management and training methods at the level of the company and the external structure of the company's customers and the individual components, which consists of the education, training and improvement of the individual, as shown in Figure 2.

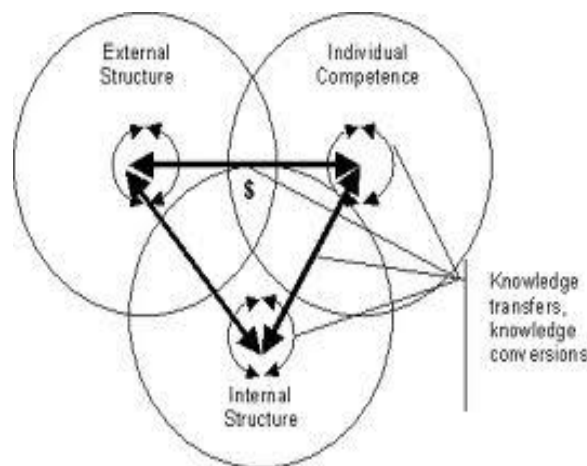


Figure 2 The Sveiby Model

(Source: Sveiby, 1997)

Human capital refers to the talents or powers held training and education, as well as the experience and value characteristics of an organization.

External capital comprises relationships with suppliers, customers and the brand, trademarks and reputation.

Internal capital refers to the knowledge embedded in organizational structures and processes, and includes patents, part of research and development, systems and technology.

## THE MODEL IN ACCORDANCE WITH "THE TECHNOLOGY BROOKER'IC"

The model is based on the idea that market assets, intellectual property-based assets, assets based on human resources and specific infrastructure assets are components of intellectual capital, as follows:

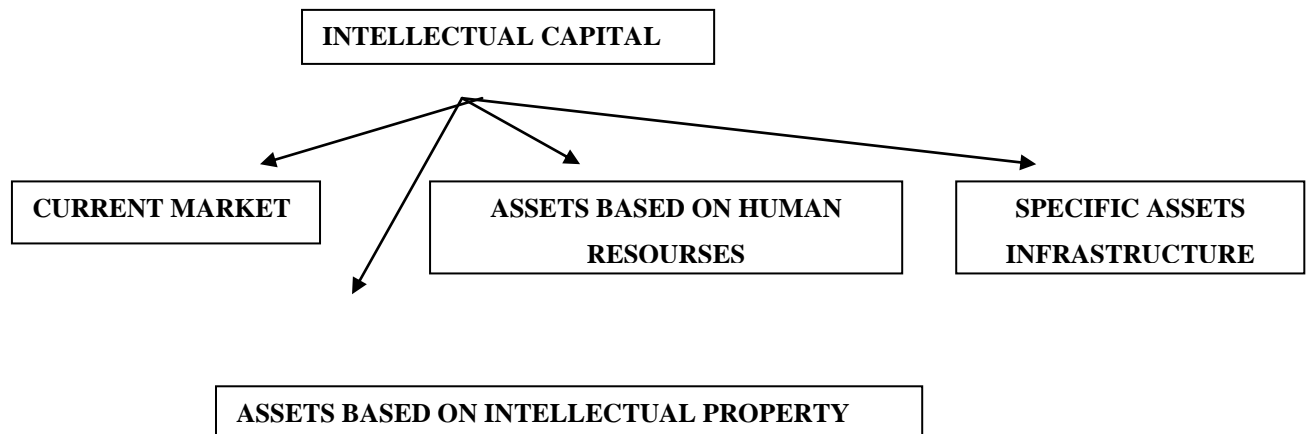


Figure 3 The Model as “The technology broker’IC”

(Source: Data processed by author, 2014)

### THE MAGIC (MEASURING AND ACCOUNTING INTELLECTUAL CAPITAL)

This model appeared in the european project MAGIC, which had the goal of developing a methodology for intellectual capital, but also a reliable measurement. According to the model, intellectual capital is made up of: human capital, organisational capital, capital and market capital of innovation, as shown in Figure 4.

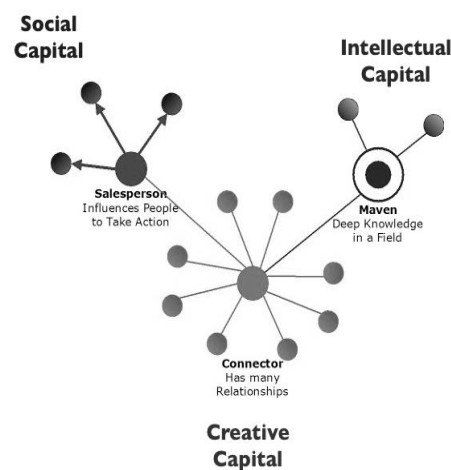


Figure 4: The MAGIC Model

(Source: Harold Jarcho, 2011)

An overview of the perspective of recognizing intellectual capital composition shows that the concept of intellectual capital is often associated with human capital (considered in all 4 models as the main element of intellectual capital). Thus the analysis of the four models we see that we must make an

accurate distinction between the two forms of capital (human and intellectual). Intellectual capital is composed by other elements in addition to human capital (organizational, market or innovation).

Also the models presented reinforce the idea of intellectual capital to be considered a hidden treasure, with the purpose of helping the company to develop technologization society, digitization and hence knowledge.

Of the four models presented show that the conceptual development of intellectual capital was made in two different directions: the first direction turned to the need for growth and development companies, and competitive capacity market, using data from harnessing the benefits of the intangible assets. The second direction is related to the desire to increase corporate success through investment in intellectual capital.

## CONCLUSIONS

Due to the fact that we live in a world dominated by intangible services, it is observed that economic resources can be recovered only through intangible investment.

Intellectual capital is a concept somewhat vague and confusing, its boundaries are not well defined, and often interact with the concept of human capital.

In accordance with the entire contents of this article, we demonstrated that intellectual capital is considered an intangible element.

Intellectual capital exposure models presented in this article reinforce the idea that intellectual capital is considered a hidden treasure, with the purpose of helping the company to develop technologization society, digitization implicit knowledge.

Intellectual capital comprises besides the existence of stock or assets, resources and the ability of the organization to transform a resource to another. Pure presence resources can not generate value. Harnessing these resources, especially how to transform a resource to another, are very important and for this reason it is necessary to find a solution for presentation of those resources.

We are in a perpetual stage of redefining and renaming the economy, society, ours as individuals, so physical things do not have the same meaning, with a focus on knowledge. It is important for every company to invest in the creation of intellectual capital, both through human capital by means of training and managers, and by implementing structural capital.

In conclusion, regardless of the benefits that the company provides intellectual capital and the major role it plays can not be included in the financial statements. Remains significant "hidden treasure behind Financial Statements", the currency of the new millennium.

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## THE ROLE PLAYED BY CITIZEN SERVICE CENTRES IN FACILITATING E-GOVERNMENT DIFFUSION IN GREECE.

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### ABSTRACT

The aim of this research is to investigate the role of 'Citizen Service Centers' (CSCs) in e-Government adoption in Greece. The ultimate aim is to contribute to the understanding of the role CSCs, third parties, play within the e-Government services' mechanism. This paper by using a case study approach, shows that CSCs improve availability, accessibility and enhance trust, privacy and security issues and could play an major role in bridging the gap between e-Government implementation and demand; and thus adoption and diffusion of e-services in Greece. At the practical level, the research aims to help e-Government policy makers to better plan, design and implement policies and strategies to increase the take up of e-Government services.

**Keywords:** *e-Government, e-Government adoption, e-Government implementation, intermediaries, Citizen Service Centres (CSCs), e-KEP, Greece.*

### 1. INTRODUCTION

Governments around the world decided to go online by employing modern information and communication technologies, in order to improve government processes (e-administration), offer e-services, connect citizens (e-citizens and e-services) and build interactions with and within civil society. These e-services are deployed through government portals and different other channels. Among them, third parties or intermediaries are used to provide a direct connection between service providers and their clients. They have become a central issue to leverage the e-government relationship with their stakeholders, government, citizens and businesses (Al-Sobhi et al., 2009). This is particularly significant as most of the existing e-government systems alone fail to resolve the coordination between stakeholders (Heeks, 2003a).

In developed countries a number of studies have been conducted to determine factors that encourage citizens to use e-government services; relatively few researches have been examined these issues in other countries, like Greece (Tambouris et al., 2004; Karavasilis et al., 2010 ). In addition, research that could promise to explore the role of the intermediaries in the e-Government context is vitally important (Al-Sobhi et al., 2009). Therefore, the understanding of what influences citizens to adopt e-

government services in addition to the role played by the intermediaries, has research value and implications for strategy makers and researchers.

The contribution of this paper is to examine the roles played by intermediaries and the main aim is to investigate their potential value in e-government service delivery. The results of this study should support government agencies in developing a better intermediation and reintermediation strategy that help reducing the gap between e-Government readiness and citizens' ability to adopt the new e-services.

The remainder of this paper is organized as follows: the next section reviews literature on intermediaries and their roles on electronic environment and on e-Government in particular. Section three illustrates the background of e-government in Greece and the roles of Citizen Service Centres in the Greek initiative. In section four, the adopted research methodology is presented. In section five, results are presented and discussed, while section six summarises and discusses the key findings; and finally section seven concludes by outlining implications and recommendations for policy makers.

## **2. LITERATURE REVIEW**

A main principle of the e-government systems is to deliver e-services for different stakeholders, but many times these principles are not met due to barriers, like lack of infrastructure, digital divide, and low trust. Then third party entities can provide citizens a useful access gateway and support for e-government services, especially if they are consolidated alongside information technology (Bailey and Bakos, 1997). These third party entities under different names (Intermediaries, Cyber cafés, or Telecentres) have been widely used for years all over the world (Furuholt and Kristiansen, 2007) and have technology, skills and knowledge on critical government factors that are necessary for successful government-to-citizen (G2C) relationships (Al-Sobhi et al., 2009). They have been mostly termed intermediaries (Heeks, 2002). They consist of a physical space and premises, are equipped with ICT and administrators (officers) to assist citizens with different government agencies (Bailey and Bakos, 1997).

Intermediaries' presence stems from e-commerce; they have been establishing relationships between the service providers and service requesters. Their relationships have been examined and are changeable over time as a result of the environmental and social conditions (Ehrlich and Cash, 1999). Chircu and Kauffman (1999) identify a variety of strategies that appear in the relationship between players that change from intermediation to disintermediation and reintermediation (IDR strategies cycle). Disintermediation means the removal of the physical intermediary from the service delivery channels (Chircu and Kauffman, 1999). With the emergence of Internet applications and the growth of e-business, there was increasing concern that the roles of intermediaries were being eliminated or

subject to disintermediation (Gellman, 1996). Disintermediation cost theory has been criticised by a number of researchers (Chircu and Kauffman, 1999; Bailey and Bakos, 1997). Instead of disintermediation, intermediaries could return (reintermediation), especially if they are “facilitated with information technology” (Bailey and Bakos, 1997). The term reintermediation refers to the emergence of new intermediaries in electronic service environment by re-establishing them in the centre of the e-service transaction process (Chircu and Kauffman, 1999; Bailey and Bakos, 1997); they add value for the service provider and requester in many aspects. Besides facilitating communication between service providers and their customers (Janssen and Kilevink, 2009), they work as a partner for helping a service requester access services provided electronically (Al-Sobhi et al, 2010). In other cases they result in increasing their roles when factors, such as trust may influence their position (Datta and Chatterjee 2008; Bailey and Bakos, 1997).

In e-Government literature an intermediary is an important element in the e-services domain and it may play a key role in helping the stakeholders to engage with new e-Government services. They can help in improving e-government adoption and decrease the challenges that occur; they help increase accessibility of e-services, by offering more points of availability for the public; they support different government agencies in the delivery of e-services, as their tasks involve management of electronic service delivery and operations on related systems; they act as mediators for citizens who require access to e-government services because of the digital divide. In many cases they support the promotion of e-services (Sein, 2009) as well as the training and education needs of citizens, by facilitating the assisted use of technology. In other cases their establishment (Al-Sobhi et al., 2009) was influenced by the difficulty in verifying the identity of stakeholders (e-identification). In summary, the intermediary entity can be conceptualized along several dimensions. Their services can range from simply providing physical access to facilitating use through online and offline service and all the way to activism (Sein, 2009).

Intermediaries can be government organizations or “Civil Society” (Gronlund, 2000) consisting of non-governmental organizations (NGOs) and concerned citizens such as activists and religious voluntary bodies (Wahid et al., 2011), as well as aid organizations (Bailey, 2009). In a few cases, especially in the developing world, these intermediaries, termed mostly internet or cyber cafés, or telecentres, provide help to users in accessing the Internet through services such as trouble shooting, tips etc (Mutula, 2003; James, 2005; Tan, 2007). They may also provide additional services such as fax, digital photos, and some go further and conduct training and education to users and prospective users (Kristiansen et al., 2003).

Beyond the above roles, intermediaries can also take an activist role with the aim of empowering disadvantaged groups; Tan (2007) examined the role of volunteer women organizations in Tanzania



and Madon & Sahay, (2002) the role played by an NGO on behalf of slum dwellers in India. Madon (2000) examined the use of the Internet in sectors such as agriculture, health and education, and derived some conclusions for government intervention, including the important role of intermediary institutions. The DNet project in Bangladesh (Sein and Furuholt, 2009), explicitly uses intermediaries, run by women who use mobile phones. This advances the empowerment of women and also leverages the power of mobile phones that is perhaps the driving force behind the next ICT wave (Heeks, 2008).

In other cases, especially in Africa many internet access points are either set up by organizations such as NGOs or are arranged by organizations (Mukerjee, 2008). In the latter role, these organizations do not set up telecentres or cafes themselves, but provide financial, infrastructural and consulting support to entrepreneurs to do so.

Kantor Pelayanan Terpadu (KPT) One-Stop Services is an example of an organizational intermediary in Indonesia e-Government. Its operators are the contact point with the citizens. Intermediation is indirect with the scope of providing a “packaged” service consisting of online and offline services. This can be described as “Government Intermediary” which provides simpler processes to citizens who need to get certain permits and licences (Sein and Furuholt, 2009).

All over Europe (e.g. Finland, Germany, Spain) there are government organizations that operate one - stop- shops services for the public. In Spain the Offices “060”, run by government organizations support citizens in obtaining information and guidance about the services provided by the public administration. In some of them there is also launching the processing of these public services (UN DESA, 2012).

In other countries UK and Italy, Public Private Partnerships have been established between entrepreneurs and government organizations. In Italy, Reti Amiche initiative adopted with the aim of bringing the public administration closer to the citizen. By utilization of existing in the private sector networks and channels (Post Office, Tobacconists, large-scale retail trade outlets, ATMs, etc.), provide user friendly and easily found access points. More than 70 per cent of these front desks are Lottery, Betting Offices and Tobacconists. They mostly issue documents such as passports, birth, marriage and death certificates and residence permits; and also payment transactions such as social contributions for domestic help, taxes and fines (UN DESA, 2012).

In all cases reported, intermediaries are local and close to citizens to address their particular needs. In addition citizens are also more likely to trust a local intermediary than the government reflecting the general distrust of governments, especially in developing countries (Sein et al., 2008).

While the interaction between a user and an intermediary happens at an individual level, there is also an organization level of intermediation. Recent trends at new public service production and delivery

models, distinguish front offices from back offices. Thus, front offices may materialise as Internet portals, call centres, or physical one-stop-shops, all enabled and assisted by ICTs, while back offices can be located anywhere and their interconnection, collaboration and co-ordination will become more crucial than ever (EIPA, 2003). This new service production and delivery model provides an opportunity for down-sizing and integrating back offices and thus making administration more efficient and streamlined; additionally by developing high quality services with more relational approaches in the front offices, making government more user centric (Millard et al., 2004).

The concept of using a third party to the vision of e-Government highlights the increasing importance of intermediaries – i.e. public partners, private and social in the delivery of public services and in the exercise of democratic governance. Governments will need to better understand the potential of these actors, in order to develop stronger, more innovative and longer term collaborative models and partnerships with them.

### **3. E-GOVERNMENT IN GREECE**

A number of initiatives have been deployed by the Greek government to assist e-Government and ICT adoption and diffusion. These initiatives were driven by European Union (EU) funding, on respective actions through the Community Support Framework (CSF) periods (Hahamis et al., 2005). Since the late 1990s, initiated from the EU funding and guidelines, Greek government has cultivated its web presence by establishing web portals to offer electronic service delivery to their citizens. That period, being in line with the above, the national e-Government modernization agenda included the establishment of the Citizen Service Centers (CSCs -KEP in Greek), the intermediaries, to facilitate government service delivery and seamless interaction to citizens. They have been seen as an initial model of multi-channel strategies for e-Government service delivery.

Nowadays there are 1060 CSCs running under the supervision of Greek municipalities, operate all over the country and mostly work on behalf of citizens as a front-end of government agencies to deliver seamless e-services (Tambouris et al., 2004). Therefore there is an increased convenience for both citizens and businesses in using the CSCs as a multi-service vending facility. So far, they have provided mostly face-to-face contact with citizens and enjoyed their trust (Tambouris et al., 2004). They are gradually being transformed to e-CSCs, following government legislation and technical requirements in terms of security, data protection and electronic transactions.

Although Greek government has invested heavily in e-Government implementation, there have been varying results and delayed outcomes. The empirical findings illustrate that the adoption and diffusion of e-Government in Greece comes second last, in the 27 EU countries (European Commission, 2010).

#### **4. RESEARCH METHODOLOGY**

To empirically explore and validate the arguments set out above, a qualitative case study approach was considered suitable (Walsham, 1993). A case study examines a phenomenon in its natural setting, employing multiple methods of data collection to gather information from one or a few entities, e.g. people, groups, or organisations (Yin, 2003). He also argues that the main advantage of semi-structured interviews is the flexibility they offer in understanding events by getting close to it, providing rich primary data and more detailed information. In this research, semi-structured interviews constituted the main data source.

Heraklion city, a large city in population terms in Crete region, Greece was selected in this experiment. The rationale for selecting it is because of its importance in terms of e-Government in Greece. Heraklion launched e-government services in late 1990s and over the last years, the Heraklion e-Government initiative has operated a set of different e-Government projects and it scores high in the e-Government agenda in Greece. For the three last years (2012, 2013 and 2014), Heraklion was announced 'smart21 community' of the world, by Intelligent Community Forum.

As Heraklion initiatives adopted CSCs in 2002, findings of this research will support central and local government in Greece, to develop strategic plans in order to assist the adoption and diffusion of e-government services.

One set of interviews was conducted between November and December 2013, by visiting a large government department at Heraklion. Two high officials were interviewed, using semi-structured interviews, which offered the opportunity to obtain an overview of e-government implementation, as well as the challenges facing e-government. Other set of interviews with the directors of the two CSCs and staff set out to collect data from the CSC organisations were carried out at the same time, by visiting the two CSCs in Heraklion.

#### **5. RESEARCH FINDINGS**

Interviews with high e-Government officials identified a number of challenges currently facing the CSCs and e-Government implementation. They mentioned that e-services provided or the e-Government projects overall are not fully implemented yet and only selected services are available online. This has resulted in lack of consistency in promoting the idea of e-Government and it is also having a negative influence on the adoption of e-services into society. Another key challenge highlighted by both interviewees was the integration of different government departments along with infrastructure. They concluded that implementing an efficient e-Government infrastructure is not an easy task and needs funding, time and effort from all government agencies. Employees' scepticism was also mentioned to be one of the important challenges in terms of e-Government services.

Another issue mentioned is technologies themselves are still a problem in recent times. There are still great concerns about the privacy of personal and financial information and security issues in implementing e-Government technologies in combination to low trust in government; security of information flow is highly important in the Greek context, where citizens are less exposed to online services. Thus training people (staff as well as citizens) in the usage of ICTs is a very important issue in the e-Government strategy. Another key issue is e-identification which has not been fully established yet in Greece.

#### *5.1 The roles of CSCs in facilitating e-Government services*

To complement the interviews with government officials, interviews were conducted with managers and staff of two CSCs in Heraklion. The focus of CSCs in Heraklion and all over the Country is mainly on connecting government departments with their stakeholders (citizens and businesses). In addition, CSCs' role is to control the transactions flow between different government departments and agencies on behalf of citizens, in both directions. CSCs' well-trained officers were found to assist citizens and business with government services, some of them being accessed through the central Government portal "Ermis" or e-KEP. Both CSC managers argued that there are always people on their premises waiting on line to get serviced for different reasons. Some Heraklion CSCs visitors do not have internet access at all, while others are having difficulties to use internet to obtain e-Government services; others are not happy with new technology gateways, especially minority groups and those with low education. In many cases also citizens need CSCs assistance because of lack of trust, information privacy and security. Interviewees highlighted the role of CSCs, as a third trusted party that take responsibility on behalf of citizens for all transactions. In this respect of providing personal information on transactions, CSCs have an important role as well; to build trust between government and citizens in relation to the e-services. Another very important role found, is that CSCs, having the legal authority, authenticate citizens in e-services that require it. Besides the above, CSCs managers stated that awareness of e-Government services in the Heraklion community is low; and if the citizens were aware of the benefits of e-Government, it would promote the adoption rate of e-Government services.

While mentioning various roles of CSCs, interviewees agreed upon the one of training the citizens to self-use new technologies and government e-services, is essential. However their services are limited to giving support to get services, due to their limited resources, capabilities and time. It has been clearly indicated a positive attitude from CSCs' staff to promote the training of Heraklion citizens in using e-services gateways, but it has not been achieved yet.

## **6. DISCUSSION AND CONCLUSIONS**

Besides the qualitative case study (interviews) with Greek government agencies and managers of

CSCs, literature review was used to explore the above themes. According to Al-Sobhi et al. (2009), the success of e-Government will be influenced by three dimensions: 1) factors influencing implementation; 2) factors influencing adoption and usage by citizens 3) role of intermediaries in bridging any gap between implementation and adoption. Accordingly, if there are difficulties on implementation or impediments on adoption they are mediated by intermediaries.

As this research has discovered, the establishment of CSCs in Greece, mostly through physical presence, have been proven to be partially successful in bridging the gap between e-Government implementation and citizens' adoption of e-services. Even if CSCs are trying to transform to e-CSCs, their webpage ([www.e-ker.gov.gr](http://www.e-ker.gov.gr)) is underutilized by the public. Furthermore, the results of this investigation show that CSCs' visitors are also influenced by a low level of trust in technology, in Greek central and local government. The enhancement of 'trust' on e-Government by intermediaries has been previously acknowledged in different contexts (UN DESA, 2012).

The interviews indicate that their agencies only provide support on behalf of citizens who apply for services (i.e. workers completing the tasks on behalf of the citizens), by accessing e-KEP and 'Hermis' and other government webpages. Another important finding is that there is no individual training offered to citizens by CSCs in self-using the e-services. Training citizens in the self-usage of e-Government services should be a major role of CSCs, as more e-services are implemented and offered on line and citizens' ICT literacy increases.

The findings of the research are in line with other research undertaken in Saudi Arabia (Al-Sobhi et al., 2009) that takes into account intermediaries. Similar results also have been obtained in research regarding citizens' interaction with electronic services in municipalities, in Attica (Kalogridis, 2007; Karavasilis et al., 2010; Delitheou and Maraki( 2010); Voutinioti, 2013). They have found that citizens' interaction with municipal websites is mostly restricted to sourcing of information material rather, than to engaging in interactions or transactions. A few reasons for this attitude revealed in the study include: citizens' concern for the safety of their personal data, low educational level and the complexity of municipal electronic services provided.

## **7. IMPLICATIONS FOR POLICY MAKERS**

Findings contribute to theory by understanding the drivers of e-Government adoption as well as the role of the CSCs. This research has practical implications for practitioners and strategy makers to further enhance delivery of e-services through multi-channel service delivery and the ways in which e-citizens might increase their willingness to interact online.

E-Government websites alone do not influence to e-Government services adoption; different segments of the population have different needs and make contact with government via different channels

(multi-channel delivery). In Greece a great majority of the population is likely to seek help (from CSCs) to interact with government online. Indeed, this study emphasises the very important channel and intermediary (CSC), to assist communication with citizens online and to act as a trusted gateway towards e-services.

Roman and Colle, (2003), pointed out that intermediaries have to change as the environment changes (reintermediation), must go beyond their initiatives and emphasize the importance of community needs assessments. CSCs have to be dynamic, transformational, adopt structure other than their initial and play different roles in the transition process. As CSCs' staff is well ICT trained they should inform visitors about the availability of e-services, using new technology (computers, PDAs, smartphones, laptops); and also they should train visitors in using e-services, while transforming to e-CSCs. By assisting to self-using the new technology waiting lines will be diminished and this model is scalable as adoption rate increases (Al-Shobhi et al, 2009). Their roles in awareness, promotion and training, are very important because they operate at the local level and they are capable of reaching easily the target group. As availability of e- services increases, promote the e-services provided at the Central Government Portal 'Hermis' and strongly promote e-identification offered there. Assist users in starting the authentication procedure and in creating and establishing an electronic locker, so most of regularly used certificates and permits are stored there, being easily accessible when needed. The above should be done along with general promotion of services set up through TV, newspapers, radio, social media etc, in order to promote e-Government benefits. Thus they can gradually be transformed to e-CSCs and the traditional offices have to operate as informational Customer Service Centers, providing mostly information, like the ones in Europe.

Among the different channels, mobile-based technologies hold tremendous promise in developed and in developing countries and in particular in rural areas, and can be expected to play a leading role in multichannel service delivery (UN DESA, 2012). As e-services are gradually been available as m-services too, encourage their use, provide help and assistance with these as well.

Enhance the already established Public Private Partnerships so private operated government authorised partners work in parallel with the municipal CSCs on pay (Post Offices, private new technology companies and voluntary sector). In fact this has already been done in a small scale with the Post Office organization in rural areas and with the accountants for e-tax services. By doing so, they will help in achieving greater access to public services (Klievink & Janssen, 2008). They also refer that experience in the private sector has shown that the creation of a competitive intermediary market will encourage intermediaries to continually improve their services and so contribute to greater take-up of e-enabled public services. Then there will be established a competitive market for intermediaries in public sector delivery too.

The basic assumption in most of the studies (UN DESA, 2012) is that a multichannel service delivery is needed. It is defined as involving the organizational interactions that make up the network, rather than as just a collection of access routes for delivering the service. In multichannel service delivery, all channels should be integrated and coordinated. Front office applications communicate to each other and support the service provision with centrally stored and accessible data. Reports are that the profile of the intermediaries (intelligent intermediaries) who add human skills and knowledge to the presence of ICT, is thus critical for projects that want to reach especially disadvantaged and socially excluded groups (Heeks, 2003b). Public-private partnerships and use of existing private sector channels can help governments to include more citizens in service delivery. Technology alone cannot guarantee that the benefits of multichannel platforms will reach large – and eventually all – parts of the population. Technology needs to be socially and culturally embedded and understood in order to be used effectively to create value. Traditional channels, ideally supported by a robust layer of technology, are still the only option in most parts of the world (UN DESA, 2012). The aforementioned require administrative reforms in most cases and are a matter of policy choice.

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## EXPATRIATE'S GLOBAL ENTREPRENEURIAL COMPETENCE AND IT'S CROSS-CULTURAL DETERMINANTS

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### ABSTRACT

Our research attempts to bridge OB and international management (IM) literature by employing competence-based theory to investigate expatriate's entrepreneurial competence from the cross-cultural viewpoint. By making an empirical research using SEM with sample of 230, the results reveal that expatriate's Big-Five personality, cultural intelligence (CQ), and cross-cultural adjustment are the key determinants which constitute expatriate's entrepreneurial competence to strive for expatriate's entrepreneurship in a cross-cultural context..

**Keywords:** *entrepreneurship, expatriate's entrepreneurial competence, Big-Five personality, cultural intelligence, cross-cultural adjustment.*

### INTRODUCTION

Derived from previous cross-cultural literature rooted from international management (IM), MNCs are continuously sending expatriates abroad for international assignments (GMAC, 2007). Positive performance of expatriates' cross-border activities will lead to company's business success. However, expatriate's negative outcomes will cause firm's investment failure, and likely lead to loss of human capital for the organization (Farh et al., 2010). The main reason of expatriate's adverse cross-border performance can be attributed to misunderstand of local culture, and inappropriate interaction with local people (Johnson et al., 2006). Namely, it is inevitable that expatriates have to be capable of adapting different cultures, and reducing ethnocentrism conscious (Caligiuri and Tarique, 2012), which can facilitate their entrepreneurial outcomes in a cross-cultural context.

Contrast to cross-cultural viewpoint, literatures from OB theory also emphasize the importance of individual's personality, such as extraversion, openness to experience, conscientiousness, and emotional stability, which lead to entrepreneurial success (Zhao et al., 2010). However, taken from a competence-based perspective to investigate the cross-cultural phenomenon, individual who works under a diverse cultural environment should not only equipped with entrepreneurial personality, but also need to possess a set of cultural-specific knowledge, skills and capabilities to strive for

entrepreneurial success in terms of interacting successfully with the people who have different cultural backgrounds (Johnson et al., 2006).

Although current research from OB, entrepreneurial theory and cross-cultural literature have emphasized the importance of individual's personal traits and cross-cultural adaptation (Johnson et al., 2006; Lee and Sukoco, 2010) on expatriates' performance abroad, few studies have taken a competence-based perspective to examine how expatriates generate cross-cultural adaptation and initiatives especially under a cross-cultural context. To bridge the research gap in current literature, our study aims to integrate OB and cross-cultural literatures and adopts the competence-based theory to build an integrative framework in quest for critical factors, which shapes expatriate's entrepreneurial competence in order to facilitate their cultural adaptation and entrepreneurship at host.

Accordingly, we find that the combinative effect of expatriate's Big-Five personality, cultural intelligence, and cross-cultural adjustment are critical to facilitate expatriate's initiatives at host. We propose that expatriate's Big-Five personality, CQ and cross-cultural adjustment, jointly enable expatriate's to exert initiatives more efficient both internally and externally in terms of leveraging different resources between and among subsidiaries, local stakeholders, and corporate headquarter (HQ) for entrepreneurial performance.

## LITERATURE REVIEW AND THEORETICAL DEVELOPMENT

### *Expatriate's entrepreneurship*

Entrepreneurship is the action of creating new products and process that consist of external, internal and risk-taking initiatives in order to tap into new market opportunities (Lumpkin and Dess, 1996; Birkinshaw and Ridderstrale, 1999). As talent is the critical asset that will bring MNCs entrepreneurial success, expatriate's external, internal and risk-taking initiatives will be the most important capacity for MNCs to execute entrepreneurial activities in the host country. Expatriate's external initiative represents that individuals exploit market opportunity outside the boundaries of corporation (Birkinshaw and Ridderstrale, 1999; Zahra and George, 2002) in order to create new product and services (Drori et al., 2006; McDougall and Oviatt, 2003). In contrast, internal initiative means finding the opportunity within the boundaries of corporation (Birkinshaw and Ridderstrale, 1999). Hence, individual who foresees those non-profit investments or inefficient operations within the whole corporation will proactively take actions to strive for performance outcome (Birkinshaw and Ridderstrale, 1999). In addition, entrepreneurship is also characterized with risk-taking (Covin and Slevin, 1991; Miller, 1983). Individuals with high entrepreneurial orientation will not only create new ideas (Gibson and Dibble, 2008), they will also proactively overcome difficulties and persistently fulfill

the development of those new ideas into execution (Morris et al., 1994). These individuals are keen to adopt necessary behavioral adjustments in a cross-border situation. (Betaman and Crant, 1993)

### *Expatriate Big-Five personality*

The Big-Five personality is defined from a taxonomy of many personal traits (Barrick and Mount, 1993 ; Digman, 1990). Zhao et al. (2010) suggest that conscientiousness and emotional stability are also related to individual's entrepreneurial activities. High conscientiousness people will demonstrate hardworking and be achievement-oriented (Ciavarella et al., 2004) in order to take challenges and encourage themselves to take calculated risks in the host environment. While taking high risk activities in the host country, individual can feel more psychological stress and experience negative emotions. Therefore, expatriate's emotional stability is important to encourage individual to persist his current task and to endure complications in the host environment.

Zhao et al., (2010) also propose that entrepreneurial function of seeking new opportunity is related to individual's creativities and openness to new ideas (Ciavarella et al., 2004; Morrison, 1997). Hence expatriates with high openness to experience are likely to take challenges, remain curious to learn how to interact with local counterparts, and act more sociable in maintaining cooperative relationships in order to seek for external and internal initiatives in host context.

### *Expatriate's cultural intelligence and cross-cultural adjustment*

In order to deal with these cross-cultural issues, not only personality is important to influence expatriates' entrepreneurial spirit (Thomas and Mueller, 2000), individual's cultural intelligence (CQ) and cross-cultural adjustment (Johnson et al., 2006) are key variables of expatriate's entrepreneurial competence.

Earley and Ang (2003) define that CQ is a capability for people to effectively deal with cultural diversity, which is a set of cross-cultural competence that consists of cognitive, motivation and behavioral elements (Johnson et al., 2006; Earley, 2002). Cognitive CQ represents knowing *specific cultural knowledge*, and the ability to develop *strategic thinking* in a cross-cultural context (Earley et al., 2006). CQ is the capability that enables individual to discover subtle nuances that guide them in their cultural adaptation and adjustment (Earley et al., 2006).

Additionally, CQ emphasizes not only knowledge, but also personal motivation which enables individual to sustain difficulties and challenges when they encounter cultural shock (Earley et al., 2006). Lastly, behavioral CQ represents individual's ability to observe, recognize, or adapt to local behavior appropriately in the intercultural environment and discover specific cultural signals from local people and adapt themselves to adjust with people in a cross-cultural situation (Earley et al., 2006).

Alternatively, cross-cultural adjustment enhances expatriate's happiness and satisfaction at host, and enable them to adapt themselves to appreciate local culture (Searle and Ward, 1990; Aycan, 1997; Peltokorpi, 2008). Hence we consider cross-cultural adjustment is the competence that characterized with expatriate's *work adjustment* (including responsibility, performance and work effectiveness), *life adjustment* (the adaptation to local food, shopping, satisfaction with local life), and *cultural adjustment* (the adaptation to local norm, culture and interaction with local people). These abilities will improve expatriate's entrepreneurial performance at host environment.

Cross-cultural adjustment allows expatriates to conduct behavioral adjustment at host. This will aid to reduce uncertainties at work and non-work environment (Aycan, 1997; Briody and Chrisman, 1991; Feldman and Bolino, 1999). Well-adjusted expatriate knows how to learn right behavior on the job from their colleagues. Additionally, expatriates who actively interact with local people, or are fascinated with host social life (Caligiuri and Lazarova, 2002) will help them to establish good relationships and behave appropriately in the cross-cultural context.

#### *Towards a framework of expatriate's entrepreneurial competence in cross-cultural context*

Derived from the OB literature and competence-based theory, expatriates' cultural cognition, cultural motivation and their behavioral adaptation to meet with local culture (Ang et al., 2006; Earley et al., 2006) are viewed as learning-driven competences (CQ and cross-cultural adjustment). However, expatriate's inherent personality will spur the combinative effects with expatriate's CQ and cross-cultural adjustment at host. Ang et al., (2006) propose that expatriates who possess positive personal traits are more curious about and likely to take new ideas into account in their strategic thinking; which enables developing broad-minded cognitive, possessing self-efficacy and self-confidence to bring them motivation and full of energy to establish a good relationship with stakeholders (Leiba-O'Sullivan, 1999). Additionally, these individuals are cooperative and trustful to interact with host people (Mendenhall and Oddou, 1985), and are conscientious with their local tasks even when they encounter obstacles and problems (Ones and Viswesvaran, 1997).

As presented in the above literature, it reveals that the combinative effects of expatriate's inherent personality, CQ, and cross-cultural adjustment strive for expatriate's entrepreneurial initiatives in the host environment. We emphasize that expatriate's personality, CQ, and cross-cultural adjustment constitute **expatriate's entrepreneurial competence**, which can effectively facilitate their entrepreneurial initiatives in a cross-cultural context. Hence, we hypothesize:

*H1: Expatriate's entrepreneurial competence (Big-Five personality, CQ, and cross-cultural adjustment) has positive effect on entrepreneurship*

## METHOD

### *Sample*

Survey questionnaires are administrated to MNCs in Taiwan and China covering manufacturing (25.2%), service (25.7%), electronic and information technology (25.2%), trading (8.3%) and financial industries (4.3%). Eliminating those non-reply and incomplete questionnaires, valid survey amounts for 230 (The validity rate equals to 88%; the effective response rate equals to 23%). Survey items are distributed by post and e-mail to those expatriates originated from Taiwan (n=190) and other nationalities (n=40); 36.5% of our sample are assigned to China, 14.8% to North America, 27.3% to Asian countries, 11.7% to Taiwan, and 4.8% to European countries. The demographics of our sample consist of 55.2% male, 59.6% married. Surveyed expatriates' age range from 20 to 65 years old, the majority age group falls between 31-40 (50.9%).

We adopt SEM to conduct confirmatory factor analysis to define dimensions of variables used in current research framework (Personality (Zhao & Seibert, 2006; Ang et al., 2006; and Huang et al., 2005). Cultural intelligence (Earley & Mosakowski 2004; Earley & Ang, 2003). Cross-cultural adjustment (Black et al., 1989; Huang et al., 2005). Entrepreneurship (Birkinshaw & Ridderstrale, 1999; McDougall & Oviatt, 2000; Morris et al., 1994).

## ANALYSIS AND RESULT

### *Harmon's one factor test*

Harman's single factor is used to examine the potential CMV issues by using exploratory factor analysis. We put all the survey items together using a principle component analysis and varimax rotation method to examine the potential CMV problem (Harmon, 1967). As the result, the first factor accounted for only 23.38 percent of the variance. This reveals that the relationships among the variables used in this study have no systematic variance with our measurements.

### *Structure equation model*

.SEM is adopted to test the casual effect between expatriate's entrepreneurial competence and entrepreneurship. The model fit is reasonable which demonstrated as follow:  $\chi^2/df = 2.866$ ,  $P = 0.003$ ,  $RMR = 0.008$ ,  $GFI = 0.970$ ,  $CFI = 0.975$ ,  $RMSEA = 0.090$ . We confirm that expatriate's entrepreneurial competence (including expatriate's Big-Five personality, CQ and cross-cultural adjustment) has positive effect on entrepreneurship (internal initiative, external initiative, and risk-taking innovation initiative) (expatriate's entrepreneurial competence  $\rightarrow$  entrepreneurship,  $\beta = 0.861^{***}$ ,  $p < 0.001$ , figure 1).

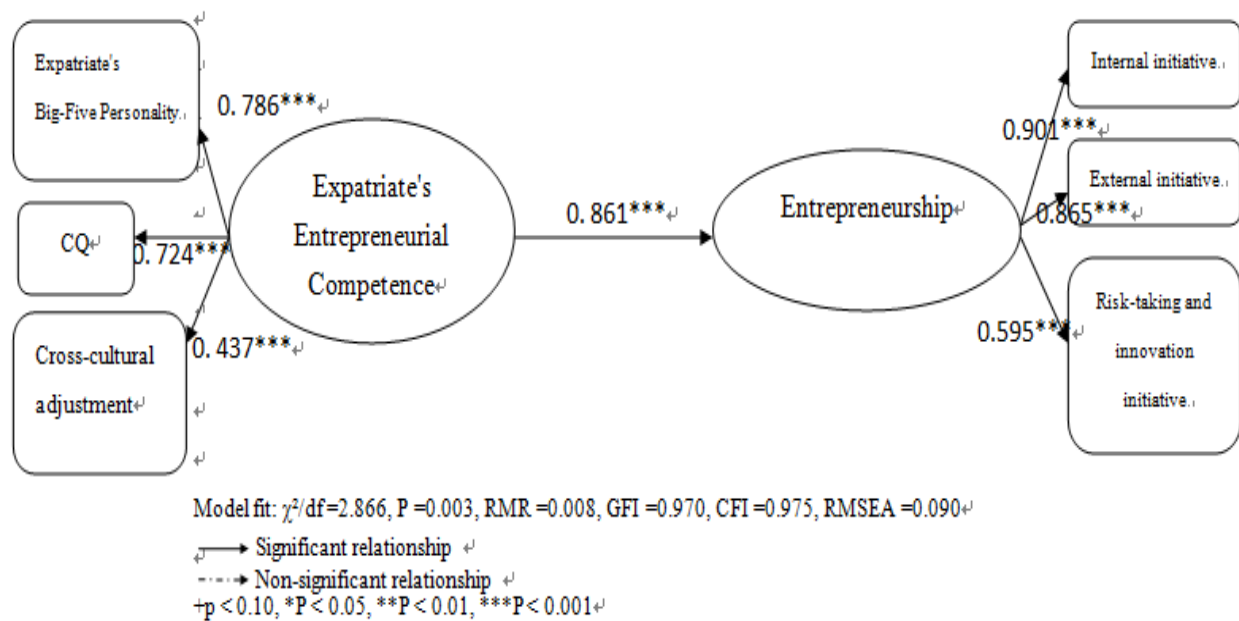


Figure 1

## CONCLUSION

Rooted from competence-based theory, this paper portrays expatriate's entrepreneurial competence and its antecedents (namely Big-Five, CQ and cross-cultural adjustment) in a cross-cultural context. We bridge OB literature to make contribution in competence-based theory by investigating and testifying the antecedents of expatriate's entrepreneurial competence when working under a foreign context. Doing so allows us to **integrate CQ, cross-cultural adjustment, expatriate's Big-Five personality and operationalize these three variables to deploy the concept of "entrepreneurial competence"**, seeking to unlock the antecedents that enable expatriates in their cross-border entrepreneurial successes on foreign assignments. We utilized competence-based theory to unfold the essence of assignment success for expatriates as our attempt to intercept IHRM literature and international management (IM) literature to make contribution in theory development.

In terms of managerial implications, past studies confirmed the prediction of individual traits to entrepreneurial outcomes (Zhao et al., 2010; Ciavarella et al., 2004). Zhao et al. (2010) suggest that conscientiousness and emotional stability are related to individual's entrepreneurial activities. High conscientiousness people will demonstrate hardworking and are achievement-oriented (Ciavarella et al., 2004) when undertaking foreign assignments. Such personal traits encourage expatriates to take challenges and calculated risks in a cross-cultural context.

On the other hand, institutional factors such as cultural distance, political distance, geographic distance, and economic distance are likely to create hurdles for expatriates in their entrepreneurial performance at host (Ghemawat, 2001). Despite that previous literatures verify the essentialness of

personal traits to expatriate's entrepreneurial success, it is also noted that expatriate's knowledge, skill, and ability reinforce and facilitate expatriate's local understandings, which in turn help them think strategically in cultural situations. (Earley & Mosakowski, 2004; Earley, Ang & Tan, 2006). Thus, expatriate's entrepreneurial competence enables expatriate to detect appropriately behavioral roles (Earley & Ang, 2003) and make accurate decisions in cross-cultural context. (Earley et al., 2006). These capabilities help expatriate overcome performance hurdles, such as liability of foreignness and cultural distances. In fact, recent study has also shown that CQ inevitably reduces expatriates' anxiety, while positively fortify their communication ability and job satisfaction abroad (Bucker, Furrer, Poutsma & Buyens, 2014); Cross-cultural adjustment has also been proved as a crucial ability to enhance expatriate's initiated performance and job satisfaction at host (Nolan & Morley, 2014).

To a greater extent, this study makes contribution by conceptualizing the essence of entrepreneurial competence constituted Big-Five personality, CQ, and cross-cultural adjustment. Our research bridges OB literature with IM research to shed light on expatriates' cross-border competence for their work-life adaptation at host. It is also insightful to MNCs in their international talent management by means of offering an exceptional standard of selection criteria and human resource practices in grooming and developing potential talents for MNCs' entrepreneurial performance. Further research in empirical analysis with larger sample size is encouraged to illuminate theory development in the future.

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## CSR DEVELOPMENT OPPORTUNITIES: MARKETING CULTURE PERSPECTIVE

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### ABSTRACT

*Purpose* – The purpose of this study is to scientifically ground theoretical insights on development opportunities of corporate social responsibility taking into account marketing culture perspective and to develop methodological provisions enabling empirical research.

*Design/methodology/approach* – The study is based on general scientific investigation research methods, i.e. systematic approach for scientific literature analysis on social responsibility and marketing culture issues in order to clarify the development opportunities of social responsibility in a company from marketing culture perspective, and to prepare the theoretical framework for the integration of cultural aspects in the research of social responsibility.

*Findings* – Theoretical studies and insights revealed beneficial social responsibility development opportunities in a company from marketing culture approach.

*Originality/value* – There is no debate on corporate social responsibility as a phenomenon and its relevance for development of stakeholder perspective, however, more active manifestation of social responsibility in companies is still an issue, especially focusing on customers, suppliers, competitors and employees. Namely this emphasises interdisciplinary and multidimensionality of the topic, as the above named stakeholders are especially relevant to marketing as market actors, and employees as internal marketing actors, whereas acceptance / non-acceptance of changes in the organization is an integral part of the organization's culture. By employing such triple construct approach, corporate social responsibility development opportunities were set forward.

**Keywords:** *corporate sustainability, social responsibility, corporate culture, marketing culture.*

## INTRODUCTION

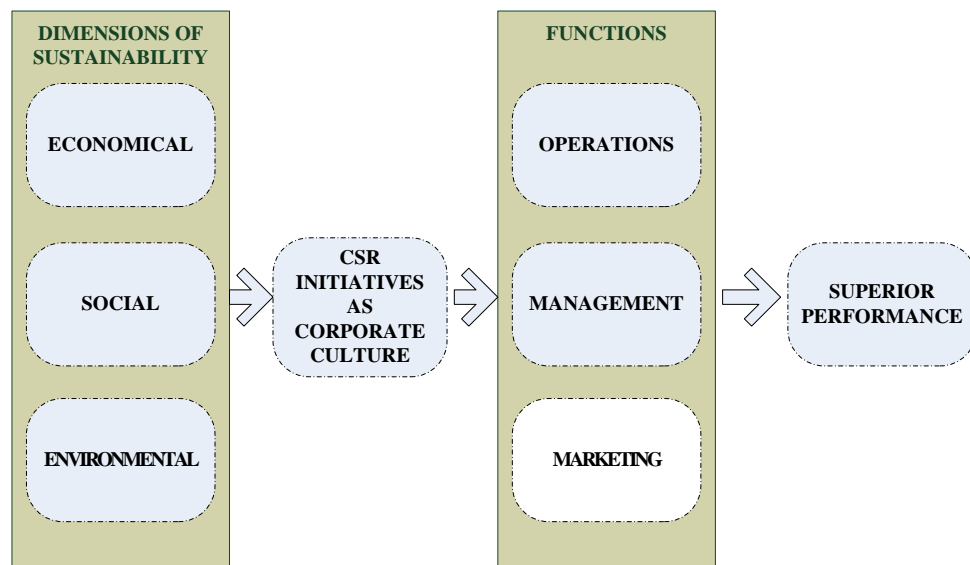
The importance of corporate social responsibility for sustainable development isn't negotiable, but the implementation of it into corporate activity is often faced with the problems. Undoubtedly business and marketing can become more sustainable from the perspective of people, planet and profit. However, for many marketers the pursuit of sustainability takes them into uncharted territory, and confronts them with many new and difficult questions. What are the benefits of incorporating social, ethical and environmental issues into day-to-day decisions making? How can business identify and make the most of the opportunities arising from the new agenda? How can companies address these issues without being accused of 'bandwagon jumping' or superficial responses? These are just some of the difficult and complex questions being asked (Charter et al., 2002). Striving for sustainability often implies reconsideration of conventional management and marketing principals, of stakeholder relationships, of clearer accountability and openness, and higher levels of innovation and co-operation.

Scientists agree that corporate social responsibility can give a competitive advantage for the organization, but at the same time its implementation meets with the difficulties as it requires the limited resources such as time, human resources, financial resources (Mazurkiewicz, Crown, Bartelli, 2005; Perrini, Pogutz, Tencati, 2006; Jenkins, 2006; Hakala, 2012). The distribution of these resources a lot of depends on the cultural environment of the organization. Different organizational culture types can dominate in companies from different industries and countries nevertheless companies should reflect new sustainability challenges in this millennium by re-examining the social and environmental impacts of their marketing strategies. This means re-evaluating their product and service portfolios, as well as the way these products and services are created, produced and marketed. However, this can be a complex challenge for marketers as it comprises company performance influence on stakeholders taking into account raw materials in the initial stage of production and finalizing with the influence long after the disposal of it. In this way marketers will feel that traditional frame of their activity has much expended.

The aim of this paper is to identify the opportunities of corporate social responsibility development within the organization through the corporate marketing culture perspective. The study is based on general scientific investigation research methods, i.e. systematic approach for scientific literature analysis on social responsibility and marketing culture issues in order to clarify the development opportunities of social responsibility in a company from marketing culture perspective, and to prepare the research methodology as well as theoretical assumptions for the research.

## CSR AS CORPORATE AND MARKETING CULTURE FOR SUPERIOR PERFORMANCE

The role of marketing in the achievement of superior performance by virtue of sustainability and responsibility practices is explained by the existing literature (Drongelen, Nixon, & Pearson, 2000). Bronn and Vironi (2001) recommend that marketers should apply the triple bottom line theory to build reputation, while Ratnayake and Liyanage (2009) indicate that management practitioners should move away from a one-dimensional financial perspective of business relationships to a holistic view of societal relationships for incorporating sustainability into the culture of the organization (fig. 1).



**Figure 8. Linking sustainability, functions and performance (adapted from Gupta, Kumar, 2013).**

Elkington (1998) used the triple bottom line theory to recommend sustainability as a cultural revolution for organisations, based on seven initiatives that can be detailed as follows:

- (1) markets should be driven by competition, i.e. the old market paradigm considers them to be compliant but the new paradigm of driving sustainability as a corporate culture highlights that they should be considered as competitive;
- (2) to drive the corporate culture of sustainability, managers should change their consideration of corporate value from hard to soft, i.e. pay greater attention to human values;
- (3) companies should become more open and transparent in their operations contrary to the traditional closed way of operation to demonstrate their thinking, priorities and commitments through activities;
- (4) the technology life-cycle should be related to the efficiency of the function it performs during its life-cycle rather than considering it as a product;

- (5) business partnerships should be seen as symbiotic instead of subversive and competitors should be seen as cooperating with each other through a relationship for a common cause;
- (6) time in business should be considered as longer rather than wider with philosophies such as just-in-time to expand horizons and encourage creativity;

The above discussed thoughts imply that corporate governance should become inclusive rather than exclusive by its design and value chain if an organization wants to change the corporate culture towards adoption of sustainability practices for converting its sustainability-driven actions into socially responsible initiatives.

## **SIGNIFICANCE OF CORPORATE CULTURE FOR CSR DEVELOPMENT**

Managers find corporate culture important in organizations because it provides a non-mechanistic, flexible and imaginative approach to understanding how organizations work (Wilson, 1992). Kotter, Heskett (1992) found that culture significantly influenced organizational performance when it either helped the organization to anticipate or adapt to environmental change or interfered with its adaptation. It also serves as the social glue that holds the organization together by providing appropriate standards guiding employees' behaviour (Robbins, 1996). Werner (2007: 28) summarises the functions of organizational culture as follows: it creates an organization identity that distinguishes one organization from another; it gives organizational members a sense of identity; identifying with the organization creates greater commitment to organizational goals and objectives; guides employees in terms of acceptable behaviours and attitudes, especially when they have to make decisions and solve problems; creates social systems stability with its associated emotional security; and serves as a yardstick for evaluating and correcting deviant behaviours and for rewarding desired behaviours.

Culture differs in organizations; hence Harrison (1993: 11) also describes organizational culture as the "distinctive constellation of beliefs, values, work styles, and relationships that distinguish one organization from another". In other words, organizational culture includes those qualities of the organization that give it a particular climate or feel. These definitions suggest that organizational culture distinguishes one organization from another organization. Therefore, organizational culture is to an organization what personality is to an individual (Ledimo, 2013).

Culture is articulated in the organization, in order to shape the way in which organizational members should behave. However, these patterns of values, norms, beliefs, attitudes, principles and assumptions may be unwritten or non-verbalised behaviour that describe the way in which things get done; to give the organization its unique character (Brown 1998; Arnold 2005).

Übüs, Ü., Alas, R. (2009) conducted an empirical study in 2007-2008 about four different culture types and eight different countries - Estonia, China, Japan, Russian, Czech, Finnish, German and Slovakian .

They made the implications – there is connection between organizational culture and corporate social responsibility. Three organizational culture types – clan, hierarchy and adhocracy predict corporate social responsibility. One organizational culture type – market predicts one facet of corporate social responsibility – the firm performance concerning social issues. This denotes that managers in the organizations with dominating market culture should take the interests of all agents - customers, subcontract firms, consumers, stock holders, employees, trade unions, public administrations and local communities into account.

Corporate culture has significant influence to its employees as it helps to create an internal climate that promotes the self-control and consistency of behaviour, enables the staff to better understand the expectations of the organization towards them, encourages to transform the everyday routine into valuable and important actions and connects the organization with values that are important to the society. Schein (1984) notes that values describe what ought to be, rather than what is. Values therefore have a motivational or aspirational role in organization.

## **EMPLOYEE INVOLVEMENT IN CORPORATE CULTURE**

Corporate culture and its capabilities become resources for the competitive advantage and employee perceptions of CSR activities play an important role in employee attachment to their organization as well as corporate performance (E.M. Lee et al., 2013). Strategically involving sustainability in the culture of the organization through processes can be achieved by creating a workplace wherein employees feel safe to express themselves and share information and their personal ideas about the influence of organization actions on its eco friendliness (Galbraith et al., 2002). An ethos of open communication can make employees feel that they are part of an organization's initiative and encourage them to contribute to the mission of their organizations, which is to become a socially responsible business (Smith, 2010). Such open communications motivate every individual involved with the organisation to express his/her opinion and drive its socially responsible initiatives towards success (Bernaur & Caduff, 2004).

Organizational culture is crucial in understanding employee behaviour and involving them to create it. Literature review indicates that organizational culture has a strong influence on employees' behaviour and attitudes (Arnold 2005; Martins & Martins 2009; Werner 2007). It involves standards, beliefs and norms that prescribe how employees should behave (Robbins 1996). Thus, it is essential for organizations to assess organizational culture in order to develop strategies to address aspects of organizational culture affecting employee behaviour negatively and to leverage on the positive aspects.

This emphasis on current organizational culture compels organization to develop reactive human resource management interventions to address aspects of culture negatively perceived by employees. This limits organizations from engaging employees further to determine their preferred organizational culture. An investigation or assessment of employees' current and preferred organizational helps to identify gaps and helps to adopt a proactive approach in culture development and change using relevant human resource management strategies.

## **MARKETING CULTURE AS A PART OF ORGANIZATIONAL CULTURE**

Marketing, in theory and practice, refers to the market activities of an organization, with the intent to reap economic and social advantages. These activities are influenced by organizational culture. According to Cameron and Quinn (1998), culture defines the core values, assumptions, interpretations and approaches that characterise an organization. Consequently, marketing culture is not only influenced by organizational culture but may also be considered a component of it. Deshpande and Webster (1989) have identified few conceptual studies, which relate organizational culture to marketing.

Organizational culture reveals the internal behaviour of the organization, whereas the marketing culture, as an element of organizational culture, encompasses internal behaviour and relationships with the environment, because the very purpose of marketing reflects the environment orientation, i.e., focus to customer, while seeking for objectives beneficial for the organization.

Several different definitions of marketing culture or market-oriented culture are found in the literature, where the most important of which are those of Webster (1995), Narver and Slater (1990) and Deshpande, Farley and Webster (1993). Webster (1995) views marketing culture as unwritten organization policy and rules, which describe the behavioural norms of organizational members, or as the reflection of the importance of the marketing function in all spheres of organization activity, or, further still, as the means, by which marketing activities are implemented in the organization. Webster (1993) asserts that an organization's marketing culture may be verified by means of measurements of service quality, interpersonal relations, sales-orientation, organization, internal communication and innovativeness. Similarly, Narver and Slater (1990) have developed and empirically tested a model of market-oriented culture, based on orientation toward the consumer, competition and functional inter coordination. In presenting market orientation as a characteristic of organizational culture, Narver and Slater (1990) define market orientation as a very important organizational culture trait, by means of which companies most effectively provide added value to the consumer and strengthen their market position. Marketing culture is defined as a component of organizational culture, comprised of a set of the dominant values, norms, means and behaviour, which characterizes the individuality of the

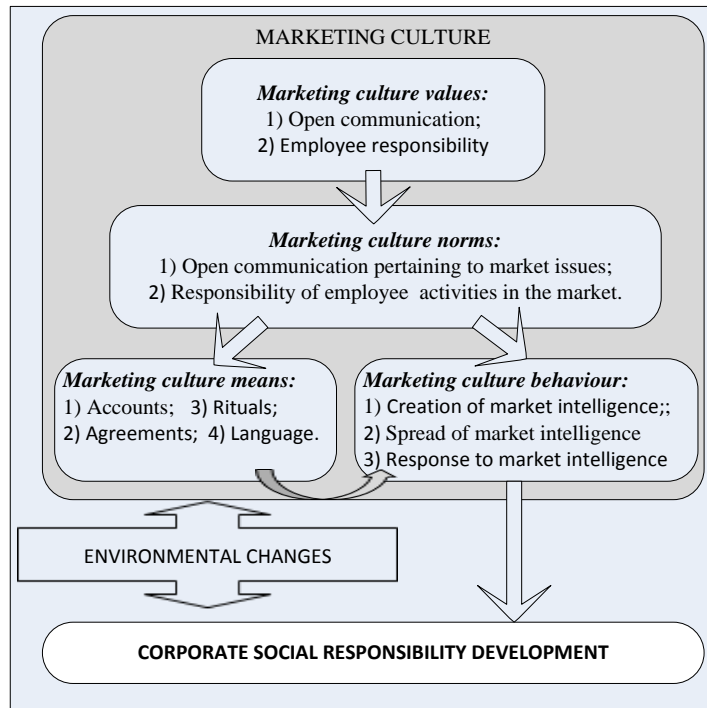


organization through its interaction with market actors. According to E.H.Schein (1992), values can be defined as a concept of the aim, either explicit or implicit, that is inherent to an individual or group and that affects the choice subject to prevailing customs, method and outcome of actions. Norms (rules) differ from values by a higher degree of specificity and association with certain behaviour. In an organization, values constitute the grounds for the development of specific behavioural norms (rules). Norms (rules) are set for expected behaviours or their outcomes, which are at least in part common to the social group. Means include accounts, agreements, rituals and language, which are created within an organization and have a strong meaning that is characteristic to symbols (Schein, 1992). Behaviours refer to organization's models of behaviour.

## **ELEMENTS OF MARKETING CULTURE AS THE PRECONDITIONS FOR CSR DEVELOPMENT**

The implementation of the changes in the organizations a lot of depends on the dominating culture and it's expression. One of the key forms of culture expression refers to *values* (fig. 2). Values manifesting in marketing activities of the organization comprise the fundament of marketing culture. Values may serve as some of the main connecting chains in a certain group of people, although the values of the group members do not always coincide; however, from the organization perspective, values are important in that they direct the staff for common activity. Values are generally analysed from the individual and societal points of view. Social values refer to things considered important and significant by the society; however, these values may vary from one society to another. Individuals, based on their values 'what should be', reflecting the values common to the society and humanity (Jucevičienė, 1996, p. 47), judge what is good and what is bad. Values strongly influence the priorities of employees, decisions being made and behaviours in the organization and it is, therefore, useful to evaluate the influence of values to organizational culture. The more members of the organization acknowledge one or another value (aggregate of values), the lesser is the occurrence of conflicts in an organization. The following values of marketing culture: open communication and employee responsibility are very important strengthening the market orientation and sustainability of the organization. Companies upholding open communication as the key value of marketing culture have a strong marketing culture, because information is spread in the entire organization instead of being kept the responsibility of marketing managers. Employee responsibility as a value of marketing culture enables decentralized making of decisions, thus making the influence of authority and hierarchical levels less important and facilitating the market orientation processes (Vranesevic et al. 2002). According to Strautmanis (2007), social responsibility should be a part of organizational culture.

Development of social responsibility is a change in values orientation, whose task is shaping the attitudes, transformation of the personal position so that it matches individual and public interests.



**Figure 9. Elements of marketing culture as the preconditions for CSR development.**

*Norms* (rules) form in the society and lesser groups of people as a certain desired behaviour directing or even committing to behave in line with the norms (rules) accepted within the group. In marketing culture, norms (rules) can be revealed based on values, while showing the forms and ways of norm expression in marketing. A norm is a kind of idea that exists in the minds of group members and requires for appropriate behaviour (Schein, 1992). Norms form a special code of conduct for a specific group and indicate the behaviours determining the activities of group members (Homburg, Pflesser, 2000). In order to function, norms have to be accepted by the group members. According to Juščius and Snieška (2008) only the organizations, which aim to save all universally accepted ethical standards of social behaviour, can expect a positive attitude and support in the society. Moreover, helping to solve social and ecological problems, they get competitive advantages and ensure their successful work in future.

*Marketing culture means*, such as accounts, agreements, rituals and language, represent the more visible stratum of culture with verbal, behavioural or physical components (Homburg, Pflesser, 2000). Marketing culture means is the most analysed stratum of marketing culture, though we have to understand that marketing culture means include more than just, for example, information systems

(Jaworski, Kohli, 1993; Kohli, Jaworski, 1990), and encompass the entirety of physical and verbal means used in marketing. Accounts may be related to conversations of employees about other colleagues, whose behaviour is a great example of social oriented behaviour. Accounts motivate the staff and impel them to commit to the organization. An example of social oriented agreement which can become the Ritual could include social events, for example, meetings with manufacturers of green goods or regular awards for social oriented staff members. Language may also specify the level of market and social orientation. For example, social oriented discussions (as opposite to the discussions only about organization's internal problems) during the meetings show a higher level of social orientation.

*Behaviors of marketing culture.* Based on literature on organizational behaviour and marketing as well as the scientific insights referred to above, components distinguished by A.K.Kohli and B.J.Jaworski (1990) are used when examining the market-oriented behaviours:

- 1) Creation of market intelligence;
- 2) Spreading of market intelligence;
- 3) Responding to market intelligence.

Intelligence is perceived as the ability to correctly anticipate, basing upon the necessary information and individual or organization (organizational) culture. Creation of market intelligence occurs through the alignment of activities of separate divisions, organization of joint meetings and product improvement in line with the customer needs. When creating the marketing intelligence, it is important that product improvement should be carried out not only in line with customer needs but evaluating social responsibility, offering friendly environment products.

The spreading of market intelligence is conducted by disseminating the information about the customer product priorities and essential changes in business within the organization and to the general public. This dimension of marketing culture is assessed subject to whether the information about product priorities of customers and changes in the company. Dissemination of information within the organization should not be protracted and the information about the fulfilment of customer needs, social projects should reach all employees of the organization.

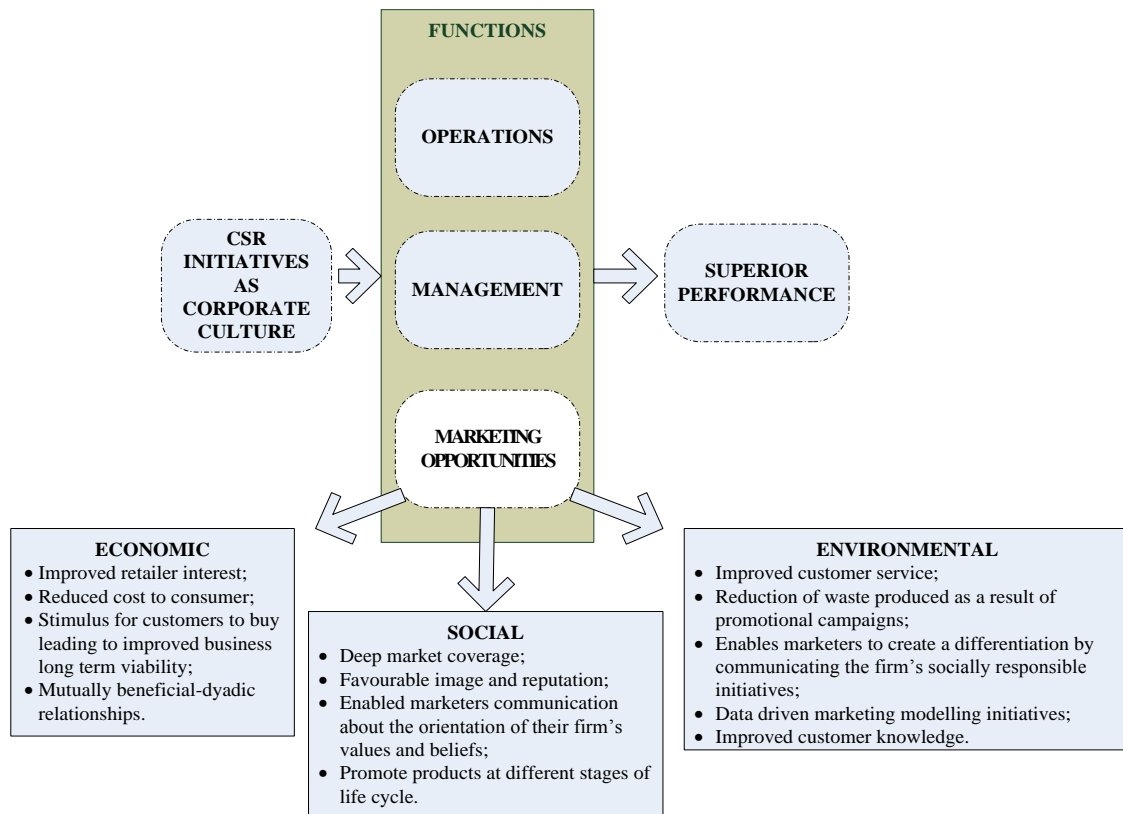
A. McWilliams and D. Siegel (2001) notes, that organization, which is complying with the laws, cannot yet be called socially responsible. Responding to market intelligence is carried out through the meetings with the customers and customer opinion surveys, evaluations of changes in the environment and response to them as well as the attempts made to meet the customer needs, educating customer and society.

Marketing culture through its elements presented above helps to attain economic and non-economic benefits and affects the organization performance as social responsible organization. It also helps to

build an exceptional and long-term competitive advantage, because it is not difficult to copy the products and presentation specifics of competitors; however, the development of social oriented culture is a lengthy process and is not easily achievable.

## **MARKETING OPPORTUNITIES IN THE DEVELOPMENT OF CSR**

Sustainability and responsibility, when practiced as value of an organisation's culture, develops new marketing opportunities for managers (Teece & Pisano, 1994). Marketing culture is, thus, an element of organizational culture, which manifests itself through relationships between the organization and other market actors. Market actors are consumers, partners, government institutions, competitors and other companies, which have ties to the organization. Based on the above, it may be assumed that marketing culture will manifest itself through organization marketing activities (interaction with the environment) or through internal marketing activities. Practices of sustainability enable marketers to communicate about the orientation of their organization's values and beliefs towards not only satisfying the needs of customers but also towards improving the life of its stakeholders as the organization's prime objective (Menon & Menon, 1997). It enables marketers to create a differentiation by communicating the organization's social responsibility initiatives, such as using environmentally friendly material for packaging the products, or reducing carbon footprints by minimising the use of paper by avoiding hard copy mailing and instead communicating electronically (Shrivastava, 1995). Designing target-based campaigns leads to reduction of the waste produced as a result of promotional campaigns (Frame & Newton, 2007). Marketing initiatives, such as creating awareness about the benefits of sustainable products or services can position the organization above competitors and enable it to enjoy a better reputation (Menon & Menon, 1997). Such initiatives act as a stimulus for customers to buy green products and improve the long term viability of the business by helping organizations to leverage on its socially responsible innovations for economic, social and environmental dividends (Boulatoff & Boyer, 2009). Sustainability-based green initiatives of a organization when acknowledged by entities operating both internally and externally to the organisation influence the organization's reputation and become its identity over a period of time (Rodrigues & Child, 2008) (fig. 3).



**Figure 10. Marketing opportunities from sustainability dimensions.**

Introduction of sustainability dimensions through its elements (presented above) helps to attain economic and non-economic benefits and affects the company performance: sales volumes, profit and success in selling new products. It also helps to build an exceptional and long-term competitive advantage, because it is not difficult to copy the products and their presentation peculiarities of competitors; however, the development of customer-oriented culture is a lengthy process and is not easily achievable.

The role of marketing in reacting to sustainability issues will be different among companies depending on their industry, size, corporate / marketing culture and whether the style of marketing they follow is classically focused towards customer, technology (product) or communications.

Marketing activity and implementation in different surroundings necessitate a detailed analysis of these activities, and their integration into a given economic, social and cultural environment is not an easy task as the same actions of marketing are interpreted differently in different cultural surroundings. Therefore, organizations have to take into account cultural differences when defining their CSR policies and communicating to stakeholders in different countries (Bird, Smucker, 2007).

Often, for commercial purposes, organization leaders and owners make decisions that are inconsistent with the intrinsic principles of social responsibility. However, in pursue of sustainable development, different company activities as well as marketing culture aspects cannot contradict the principles of

social responsibility. Rather, the ideas must complement each other and become cohesive interrelated. Marketing culture values and norms should be reflected in the social responsibility ideas. Organizations allocate funds for social projects, but often treat that as one of marketing tools instead of equivalent partnership and systematic cooperation with the stakeholders. Therefore, the need to look for the organization's opportunities in the implementation of social responsibility principles, one of the possible solutions is the development of socially responsible marketing culture by incorporating it into unified company strategy.

## CONCLUDING REMARKS AND DISCUSSION

This paper has created a research agenda for sustainability issues regarding CSR development opportunities from marketing culture perspective in the business domain. Since corporate sustainability and social responsibility research highlights new challenges and opportunities for businesses, the research focused on the company's ability to practice socially responsible initiatives from corporate and marketing culture perspective and create new opportunities for operations, management and marketing.

In companies where the decision to pursue sustainability is based more on corporate values or broader issues of CSR, marketers may be handed a mandate to pursue sustainability through the revision and re-alignment of corporate strategy. Therefore, corporate strategy, culture and governance should reflect sustainability practices and socially responsible initiatives in its design and value chain. Such implemented practices and initiatives offer diverse benefits, i.e. organization identity that distinguish it from the others; a sense of identity for organizational members; greater commitment to organizational goals and objectives; acceptable behaviours and attitudes of employees in making decisions and solving problems; and stability of social systems. Stability could be achieved through the corporate culture as it has significant influence upon its employees. Their perceptions of CSR activities play an important role in affection towards their organization as well as corporate performance. Organizational culture is crucial in understanding employee behaviour and their involvement in the creation of it. Marketing culture, as an element of organizational culture, encompasses external behaviour and relationships with the environment, as the very purpose of marketing reflects the environment orientation, i.e., focus on customer with the intention to seek beneficial objectives for the organization. Therefore, this research emphasises communication as a very important aspect of marketing culture within a CSR framework contributing to the responsible decision-making. Companies supporting open communication as the key value of marketing culture have a strong marketing culture, because information circulates in the entire organization and becomes not only the responsibility of marketing managers. Employee responsibility as a value of

marketing culture enables decentralized decision process, thus making the influence of authority and hierarchical levels less important and facilitating the market orientation processes.

Further research should aim to find the relationships between organizational/marketing culture and corporate social responsibility. Organizational and marketing culture changes over time and possible consequences on corporate social responsibility should be studied.

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## **BOOK OF CONFERENCE ABSTRACTS**

## NEW ROLES AND TRADITIONAL EXPECTATIONS – ACADEMIC LEADERS IN EIGHT EUROPEAN COUNTRIES

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### ABSTRACT

The structural changes in public organisations have resulted in a development path which requires staff with a leadership role to carry out the reforms. This has been reflected in Finland within its universities, which transferred from direct government control from the beginning of 2010. At the same time, it has led to a contradictory entrepreneurial culture and bureaucratic processes in university decision making and operations. This is because the universities are still largely government-funded organisations with a financial system in which academics are subjected to market forces and competitive funding schemes. However, the types of entrepreneurial practices required of academics and the style of new leadership are not clear.

For example, government productivity programs are based on increasing performance expectations with fewer staff resources, but at the same time there has been a restriction of the traditional role of academic leaders. Implementation of the changes occurred first of all for the leaders, who are also responsible for operational performance. In this way the changes are taking place at universities outside the leaders' regular work load. In this regard, it is evident that the disengagement in state universities has meant the erosion of academic leaders' authority. The question is how academic leaders can enhance their role as managers.

This presentation raises questions about the type of operational principles academic leaders hoped for, and the role they aspired to for themselves. Although the presentation concerns universities, the cases presented show a more general role in public and private leadership. The main themes of the presentation are the content of work; the skills academic leaders require ; changes in the leadership role; differentiation from the traditional profession; and professionalism as a requirement for those occupying academic managerial posts. The presentation also looks at examples of leadership changes. The data are based on the 11,900 European responses to the Changing Academic Profession (CAP) survey (2008-2011), and 60 interviews of Finnish academics conducted in 2011 as part of the EUROAC project that was conducted in eight European countries.

**Keywords:** *academic leadership, academic profession, professionalism, work content*

## **MOBILE MARKETING: FUTURE'S PROMOTIONAL CHANNEL**

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### **ABSTRACT**

The purpose of this research is to investigate the role and importance of mobile marketing. This will be achieved by theoretically defining mobile marketing; exploring its significance in adopting a multi-channel marketing approach by marketers and business owners; investigating its role in integrating with social media; and proposing a conceptual framework towards its utilization in the wider strategic marketing context.

Mobile marketing has emerged as a new addition to the portfolio of marketing communication tools. Every day more businesses are incorporating mobile marketing into their marketing mix in order to communicate effectively with their customers. The main purpose of mobile marketing is to increase the awareness level of the businesses by assisting them in gathering relevant information about the needs and preferences of their target customers in a timely and profitable manner.

Entering the mobile channel requires a high-level strategic plan. Mobile strategy is the framework that defines how various mobile tactics such as mobile websites, mobile apps and other mobile marketing communication tools are used to satisfy the customers' needs and achieve the specified marketing goals. Furthermore, a successful mobile strategy depends on a harmonious balance between: (1) the brand, (2) the customers, and (3) the environment. The brand, the customers, and the environment have identical importance in a mobile strategy; however, a successful mobile strategy is one that is uniquely customized to the specific brand and the target customers.

From a methodological perspective, the research is based on theory at this stage of development and it is enhanced by secondary data. Theoretical considerations from the literature are further conceptually developed to construct a mobile marketing provisional framework towards empirical validation.

Taking the research studies on mobile marketing into careful consideration, it is evident that there is a lack of awareness and knowledge among marketers that plan to adopt and integrate mobile marketing into their direct marketing communications. This is due to the limited number of research studies exclusively dedicated to mobile marketing communications using smartphones and tablet PCs. With the rapid mobile technology developments, marketing through the mobile channel is getting pervasive and not negligible in the upcoming years. Therefore, to entirely adopt mobile as a new element of the marketing mix, marketers are required to evolve along with it. Otherwise, they will gradually lose a large number of customers who are mobile.

Consequently, it should be taken into consideration that mobile marketing opens new horizons for businesses and marketing managers which will ultimately result in increasing sales and consumer traffic, driving offline sales up by incorporating location-based search strategies, and building customer loyalty and trust by asking for their permission prior to initiating a marketing dialogue with them. The research outcomes do add to the growing knowledge concerning mobile marketing and set the basis for a more refined understanding through a more comprehensive perspective on the topic.

**Keywords:** *Mobile marketing, digital marketing, social media marketing, social networks, So-Lo-Mo, marketing communications*

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## "ELICITING INDIVIDUAL PREFERENCES FOR IMPACT AND SOCIALLY RESPONSIBLE INVESTMENTS"

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### **ABSTRACT**

Impact and socially-responsible investments have increasingly gained momentum over the past few years. Institutional investors, such as pension funds, are proactively integrating such practices into their investment strategy as they realize that sustainability and social responsibility are part of their fiduciary duty (Koedijk and Slager, 2011). Nevertheless, the preferences of pension funds' beneficiaries that investments should meet such criteria, have not been sufficiently investigated yet. The literature suggests contradictory findings about the financial performance of such responsible funds compared with the conventional ones in the long run and therefore concrete conclusions cannot be established yet. However, we may argue that responsible funds have greater administrative costs over the conventional ones. Therefore our research objective is twofold: first we seek to answer the question to what extent individuals would sacrifice a small part of their expected pension income in exchange for investments which add social value. Second, we aim to examine whether individuals are capable of making consistent choices with regard to investment decisions that affect their well-being. In this study, which is based on a discrete-choice modeling framework, we present how members of a Dutch administrative pension organization make trade-offs between different investment criteria such as Impact Investments (ImI), Socially Responsible Investments (SRI), Social Initiatives (SI), and their willingness to accept a lower pension in the selection process of a responsible investment portfolio, given the opportunity of such a choice.

The framework to elicit individuals' preferences is based on the random utility theory (see (McFadden, 1986; Louviere et al., 2000)). Empirical data for this study was collected from individuals who work in the care and welfare sector in the Netherlands, using a web-based discrete choice survey. Each survey instrument contained 10 choice profiles and compared 4 attributes of 2 different responsible investment portfolios. The attributes varied from 2 to 10 levels according to a full profile choice-conjoint design. The result of the analysis, of the Hierarchical Bayes (HB) regression models, shows the relative effect of ImI criteria, SRI criteria, SI and the willingness to accept a lower pension on the selection of a responsible investment portfolio.

This article also presents our findings with regard to the construal level theory and the psychological distance theory Trope and Liberman, (2010). Liberman et al., (2007) argue that although a greater

psychological distance is associated with more desirable outcomes, in the end, individuals are more likely to implement the closer in distance outcomes, considered being more feasible. Thus, we construct measures of the temporal, special, social and hypothetical dimensions of the psychological distance toward responsible investments. Several policy recommendations stem from our research: different strategies can bridge the psychological distance gap; framing, nudging, communication strategies and the improvement of the financial knowledge are only a few of the strategies that aim to transcend behavioral biases.

**Keywords:** *Pension Funds; Impact Investing, SRI, Social Initiatives; Psychological Distance; Stated Preferences; Conjoint Analysis; Behavioral Economics.*

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## ORGANIZATIONAL INTERVENTION FOR INCREASING INTERPERSONAL INTERACTIONS AND CREATIVITY

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### ABSTRACT

Organizations encourage their employees to engage in practices that increase performance and facilitate the achievement of their business objectives. In this research we focus on interpersonal interactions and creativity, which are often associated with personal and organizational successes. The current research experimentally examine whether these types of behaviors are malleable and can be shaped by organizational intervention. We suggest that a 2-hour intervention, which evokes openness to other people and ideas, can change the way individuals think about others, and perform creatively. This research question was tested using an organizational intervention named Diversity IceBreaker that was developed by Bjørn Z. Ekelund, and was successfully implemented in multiple organizations in Europe and the US. The intervention creates a non-judgmental environment that emphasizes the advantages of diversity in personality types, through self-revealing and humoristic interpersonal interactions (Ekelund, 2010). We hypothesized that the intervention: 1) will amplify positive emotions, decrease negative emotions, and increase trust (Study 1); and 2) will facilitate creativity and awareness for social identity (Study 2).

In Study 1, 211 Israeli undergraduate business students were invited to take part in a workshop on interpersonal communication for partial course credit. They were assigned to eight groups in which they experienced a 2-hour intervention. The participants completed a short questionnaire at the beginning and at the end of the intervention, including measures of positive and negative affect (PANAS, Tellegen, Watson, & Clark, 1988), and trust (adapted from Yamagishi, 1988). As hypothesized, positive affect increased and negative affect decreased following the workshop  $t(210)=2.42, 2.56$ , both  $p<.01$ . Also as hypothesized, participants' trust increased following the workshop  $t(210)=1.86, p<.05$ .

Study 2 focused on creativity and social identity, and included 82 participants, who were assigned into four workshops. The order of the creativity task versus the identity task was manipulated: Participants were randomly assigned into "creativity-first" versus "identity-first" condition. Creativity was assessed using a divergent thinking task (Wallach & Kogan, 1965). As expected, the ideas provided by the participants after the workshop were more novel than those provided prior the workshop  $t(79)=2.11, p<.05$ . Identity was assessed using the Twenty Statement Test (Kuhn &

McPartland, 1954). Also as hypothesized, participants described themselves more in relational terms after the intervention than prior to the intervention  $t(79)=1.95, p<.05$ . Importantly, the extent to which participants described themselves in individualistic terms did not change following the workshop. Thus, the workshop simultaneously facilitated both autonomy (leading to personal creativity) and social engagement.

In sum, a 2-hour intervention which created a friendly and open atmosphere increased individuals' trust and affective well-being (Studies 1-2) as well as their creativity and relational identity (Study 2). The experimental setting enabled us to establish causality and assure that this intervention has an effect on participants' affective well-being, creativity and identity. Future research could investigate the resistance of these effects over time, and try to replicate them in real-life organizational settings.

## **SERVITIZATION: A CONTENT ANALYSIS AND EVIDENCE FROM MOBILE PHONE INDUSTRY**

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### **ABSTRACT**

#### **PRINCIPAL TOPIC**

One of the most important phenomena of modern economy is *servitization*, conceived as the impetuous advance of the service sector compared to agriculture and manufacturing industry.

On the supply side, the servitization is the evolution of the offering from a simply material product to one that is inseparable from services (Vandermerwe and Rada, 1988). Indeed, the increasing importance of services has been pushing the firms to offer a product-service system (PSS) (Baines et al., 2007), made of a variable mix of tangible (the product) and intangible components (a mix of services), both of them fundamental for the generation of value.

#### **MAIN PURPOSE**

The aim of the study is to investigate the phenomenon of servitization through an in-depth activity of literature review, using the content analysis technique, and a survey of the mobile phone industry.

The choice of this industry is due to the great importance that services have been taking during the last years.

Today's handsets are not simply traditional phones but better mobile computing platforms for voice communication and content and services fruition, i.e., what has been named a mobile ecosystem (Mitchener, 2009). This is moving competition from physical attributes (e.g., handiness, battery life, signal reception, etc.) to soft components of handsets (operating systems, online marketplaces, graphical user interfaces) and, on demand side, it is allowing vast personalization of devices' functional capabilities.

#### **METHOD/STRUCTURE**

The work is organized as follows.

The first part consists in a systematization of the literature about servitization using *content analysis*. This research technique, reducing a complex phenomenon in a set of defined categories, facilitates its analysis and interpretation (Harwood and Garry, 2003). In particular basing on an initial - general and

ample - literature review, the content analysis is carried out considering the most influential international works, selected according to the impact factor of the journals they were published by.

The second part of the work analyses how servitization, enhanced by the introduction of the iPhone and the launch of the App Store, has changed the mobile phone industry both on the supply and demand sides.

## FINDINGS

The work carries out an overall and unitary analysis of the most important studies about servitization, analysing meaning, defining characteristics and effects of the phenomenon. This should permit to draw useful managerial implications, mainly regarding the development of new capabilities necessary to run the transition from the product to the PSSs (Oliva and Kallenberg, 2003).

Then, moving from theory to practice, the study focuses on the mobile phone industry and analyses how it has been changing from a product-oriented industry, where the value of the offering was strongly dependent on the characteristics of devices, to a service-oriented industry, where handsets are mobile platforms used to access a large choice of services. As a consequence the value chain has been changing, centring on users who can define, thus personalize, the characteristics of their devices, and shape them on their exact needs.

This has made the offering more customizable and complex than in the past, asking firms for the aforesaid competence development and consequently for organizational changes.

**Keywords:** *Servitization, mobile phone, value chain.*

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## AN INQUIRY REGARDING THE IMPLEMENTATION OF INTELLIGENT SYSTEMS IN LOGISTICS NETWORKS, NECESSARY FOR SOCIAL INNOVATION

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### ABSTRACT

The history of human premises is accompanied by researches and confrontations generated by human groups that attempted to find and provide favorable living areas, to serve their needs and interests determined by their needs of life. Thus, we can talk, compare and analyze different economic indicators like developed and undeveloped regions, poor and rich regions, agricultural and industrial regions, urban and rural areas. Differences and discrepancies that are more obvious in economic terms between regions on a global, continental, regional, national and even sub national scale are creating economic inequalities and the improvement of the standards of living together with the deterioration of the natural environment represent the major challenges of the current technological civilization (Mulgan, 2006).

The content of this paper is focused on the implementation of Intelligent Systems (I.S.) especially Intelligent Transport Systems (I.T.S.) in logistics projects that are necessary for the development of social innovation, which transfigures the interactional approach to all phases and stages of projects involved in the logistic process. This includes the structuring of design, analysis, strategy, planning, financing and completion of projects, creating conditions for interconnections of all activities involving logistics projects in a primary flow, towards all operations, actions and phases of the implemented projects, forming secondary logistics projects involving resources, time and costs of the initial project.

Regional development projects or secondary logistics projects represent the tools by which local authorities or local companies initiate the implementation of economic or industrial objectives, in accordance with the regional strategies, plans or programs needed for regional development or social innovation. Regional development or social innovation through projects allows rational allocations of funds and effective allowance of the local resources in accordance with the development priorities of the regions or with the regional policies (Mulgan *et al.*, 2007).

In terms of regional development in the European area especially in the European Union (E.U.) zone, transnational and multi-sector projects require the use of design tools and network interconnections between different elements and components of the regional European areas (population, economic

and financial potential, social and cultural indicatives etc.) requiring the taking into account of the capacity of these tools to analyze, schedule and implement these projects ensuring the necessary objectives required for all problems faced by regions: inequality, pollution, poor technology, administrative distortions, inadequate infrastructure etc.

The projects promoted by the E.U. provides all the methodology and all the necessary logistics systems and also the operational factors needed for proper implementation of the regional objectives developed in various areas while the regional and rural areas targeted by the governmental authorities have been given more attention and interest necessary to achieve these projects (Mortensen *et al.*, 2002). The principles, objectives and criteria for the selection of joint-projects that are implemented at a regional and/or local area allow the E.U. to harmonize and link the financial efforts that are focused on areas that need developed to the logic of concentric priorities according to three criteria: the type of project that needs to be implemented, the nature destination of the funds and priority investment in certain projects that are needed by the local community.

Regional development projects that have a deep impact on the bioeconomic environment at a local and regional area can be improved with the help of Intelligent Systems (I.S.) and especially with the help of modern logistic networks that are used and are implemented as a coherent and unified system within the European area as a priority to unify the diversity of differentiated regional and local (urban and rural) systems in all states in the E.U. and at all levels providing premises for success and performance of these projects.

The regional development programs needed for social innovation and stimulation of the bioeconomic environment that are promoted by the E.U. were decisively marked by the establishment, development and expansion of the E.U., which has passed through the institutions, bodies and gradual convergence of principles, objectives and instruments of European regional development strategies and policies.

In our opinion, at the present time, Europe is faced more and more with disparities at a regional level which is influencing the economic development, traditions and the mentalities of the local population which have a deep impact on the social and institutional structures that are specific to each region; all these discrepancies must be harmonized, in an effort to create a common European space, fairly accessible to all inhabitants within the E.U.

**Keywords:** *intelligent systems, innovation, logistics networks, social innovation, transport systems*

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# **CORPORATE SOCIAL RESPONSIBILITY AND CROSS-CULTURAL SENSITIVITY: MODELING THE TEACHING EFFECT ON INTERNATIONALISATION**

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## **ABSTRACT**

The concept of corporate social responsibility as a key to future sustainable strategy is widely used in the most innovative corporations, advanced economies countries and Universities. Starting from 50s of the last century the corporate world have tried to tailor or to neglect different models of economic, social, legal and philanthropic vectors to reschedule their strategy to be responsible, sustainable and paying the investments back. Although social investments and social entrepreneurship are becoming a hot topic, we found that there is a literature gap in finding, what are the key competences to prepare and form successful entrepreneur in regards to global education internationalization and socializing imperative in international business.

We assume that the portrait of the innovative entrepreneur corresponds to a model combining leadership skills, social responsibility and cross-cultural awareness, which would be based on international peculiarities of legal, social and economic systems. On the other hand, the realities of today incorporate IT competences and creative/innovating thinking, which all together contribute to business sustainable development because it potentially has positive effect on both personal and/or corporate financial and social outcomes. One of the most important challenges calls for a specifically tailored learning programmes at Universities, while the growing number of CSR related schools, sustainable management for industry courses obviously retreats the urgency. This type of innovation also contributes to business sustainability. However the specific effect on these outcomes can be highly influenced by the national context in which the “cohort” of participants develops their activities.

## **METHODOLOGY**

Based on the described above approach we have developed short summer programme "Sustainable Business Development: IT, Innovations Strategies". After pre-selection process accepted participants are asked to prepare a presentation on their vision of CSR in their countries and creatively present it at the beginning of the summer school. On the first day of the school, the participants are divided into 4 groups: Industrial Business (employers), Government (regulators), Universities (educative structures and science), Service Sphere (Consulting Companies). Using an institutional approach and employing a



sample of 120 participants, we study whether national institutional conditions impose a moderating effect on the relationship between different layers of education system and thus surplus knowledge driven strategy ambitions for the future top-managers. We also have examined the effect of short programmes on the internationalization of Universities as a side-effect. The first objective was to develop a scale that enabled the measurement of students' sensitivity to sustainability and hence, effectiveness of programmes. We aimed at measuring 3 types of Russian and international students – young managers with 3-8 years working experience, students studying economics and management, and students studying technical sciences. To measure the extent to which an individual values corporate social strategy before and after programme, in other words Education Programme Effectiveness, a forty-five question survey instrument was developed, which consisted of the following three sections aimed on understanding of programme demand for students, business structures and University. The first unit of questions aimed to measure students' sensitivity to corporate social performance; the second captured cross-cultural sensitivity to internationalized education programmes at home and abroad; and, the third was used to collect demographic characteristics. In developing the survey, we have discovered an important detail in regards to testing the teaching effect of the short programme in a foreign language. The questionnaire was revised to leave 35 questions. We attempted to assess the effectiveness of programs in the development of the internationalization of education at the university (first unit), and susceptibility to social responsibility (second unit), and cross- cultural tolerance (third unit). We have studied the following types of sample: participants of the summer school (Russian and foreign, both technical and economic education profile) – 36%, foreign university students who have not participated in the thematic school – 10%, Russian university students who have not been involved in summer school, – 54 %. Although the sample is not highly representative for complex statistical analysis so far, we have rather interesting preliminary results.

## **SOME PRELIMINARY RESULTS**

The first group of questions gave some contradictory results. The respondents would be very interested in interdisciplinary master programmes taught in English, although only 20% would stay at home University. The second group – about 84% would not work for a company with bad CSR-reputation, but the wage would change mind of a 41% of those. Of course we had clear difference between those who attended the school, it turned out that the students hardly know (or think) about volunteering-possibilities, and also a lot of them have no idea what is social responsibility today. 53% consider CSR as a charity action. Since the majority of respondents were males, the women's rights issues are less important than the issues of minorities and people with disabilities. The third unit of questions indicates cross-cultural tolerance and interdependence: the respondents are very open to the people of

other nationalities and cultures; they are not ignorant to non-native speakers of Russian. A sufficient number of respondents would like to live and work abroad, but most prefer just to travel there for short vacations. It is interesting to see the significant difference between Chinese and Papua New Guinea students who are enrolled to UrFU, but were not participating in the School described above.

## DISCUSSIONS AND FURTHER RESEARCH

The present paper opens perspectives to systematize the evaluation system of internationalization of education programs at UrFU, and also the development of statistical and marketing tools to develop a comprehensive strategy to enter the international education market. Obviously, these short programmes contribute to the growth of interdisciplinary competences in the field of economics and management, information technology, responsible leadership and intercultural communication. The main aim of this framework is to help students appreciate the wide-ranging perspectives on sustainability; to get them thinking about what the different “flavors” of sustainability mean for organizations – the structural and cultural implications; to critique how different organizations approach sustainability; to debate the different solutions and business cases for organizations pursuing sustainability; and to consider the wider macroeconomic implications of corporate sustainability. The authors have found that this framework generates a good deal of class discussion because it counterposes different sustainability perspectives with the neoclassical “business-as-usual” thinking that underpins the possible education programme at UrFU. Our results show that regulatory and normative dimensions do not have the same influence on that relationship, creating implications for academia, managers, and education policy makers.

**Keywords:** *Sustainability, Information Technologies, Education, Social Responsibility, Cross-Cultural Competences and Sensitivity*

## **EVALUATION OF INNOVATIVE CAPACITY OF A RUSSIAN HIGH-TECH PHARMACEUTICAL ENTERPRISE AND ITS POTENTIAL FOR INNOVATION**

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### **ABSTRACT**

There is an imperative need for companies to remain dominant in the pharmaceutical market. Challenges like the high speed of global business development, strong competition or economics powers are setting the standards too high for the pharmaceutical businesses. In order to achieve this competitive sustainability companies have to provide the best of their human capital and technological resources to reach great innovation levels.

According to McKeown, (2008) innovation relates to the use of more effective and efficient ways for making an invention or an idea valuable, but also, enforcing an invention for monetary or economic gain. Over the years, innovation has seen nations, regions, and economic entities developed at a greater scale due to increased efficiency and productivity (Filho, 2005). There are various factors on a macro and micro level that influence the degree of innovation in any given business organization or even affecting the entire industry. Those include changes in the business environment, changes in the structure of markets and market forces affecting more the macro level and, the level of education and scientific knowledge in an organization, research and development of skills within the workforce, and changes in the business culture and beliefs within the society, affecting more the micro level.

Pharmaceutical's innovation has been the lion's share in the pharmaceutical sector for many years around the world (Dubey and Dubey, 2010). Most probably because the pharmaceutical industry "stands at the center of the health of nations, rich and poor nations alike" as Rao (2008, p.103) explained. Nevertheless, there is a current decline success rate in the pharmaceutical industry due to a number of reasons: reduce number of new product approval, an increase in the costs of innovation, long research and development cycle and potential patent expiration (Dubey and Dubey, 2010; Huang, 2012) impacting on the overall pharmaceutical growth.

The paper explores reasons and motives that positively influence the innovative capacity and the potential for innovation in the Russian pharmaceutical market.

The paper begins with a review on existing literature in the field of pharmaceutical and innovation. It addresses in a detailed manner the reasons and factors which determine the innovation capacity and the potential for innovation of pharmaceutical firms. It continues with the research methodology and

*finally, the third part* entails the presentation and discussions of the results obtained from the study, drawing some conclusions, recommendations and suggestions for further research.

The study adopts a case study research design and uses both primary and secondary data. *Primary data was obtained from questionnaires administered directly and through email to various Russian high-tech pharmaceutical enterprises.* A total population of 100 respondents is targeted. Stratified and simple random sampling techniques are used to select a sample size of 50 respondents. The data is to analysed through descriptive statistics and later presented in frequency tables, graphs and computed percentages.

The applicability of this study might contribute with regional economists, practitioners, analysts, policymakers, government agencies and investors who will be *able to determine whether their investments are operating optimally and also* to scholars and researchers since there is a lack in literature in this specific field and concretely in the Russian market.

The study identifies that a broad working experience has the tendency to increase the innovative capacity and potential for the innovation of the high-tech Russian pharmaceutical enterprises. Access to education increased the knowledge base of the staff members and, hence, the level of innovation. Allocation of resources for innovation is important for any pharmaceutical enterprise aspiring to increase its innovative capacity and potential for innovation.

Based on the findings and conclusions of the study, the researchers recommend that management should ensure that they minimise employee turnover to increase the skills of the employees, with the hiring of staff to be done based on academic qualifications. Additionally, monetary and non-monetary resources should be allocated evenly for innovation purposes.

**Keywords:** *Innovative Capacity, High-tech Pharmaceutical Enterprise, Potential for Innovation, Russia*

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## HANDLING DIFFERENT MANAGERIAL LOGICS IN THE PUBLIC SECTOR: A TALE FROM THE LAND OF THE FJORDS

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### ABSTRACT

In Norway, as other western countries, the public sector has been facing administrative reforms influenced by New Public Management, NPM. The ideological foundation behind NPM asserts that the sector can improve by introducing managerialism, technology and values emanating from the private sector (Pollitt & Bouchaert 2011). The NPM-influenced reforms are taking different trajectories in different countries, but their purposes and approaches are rather similar: 1) increased efficiency, 2) enhanced accessibility for clients/users, 3) reduce public consumption, and 4) increase managerial accountability (Christensen & Lægreid 2011). This paper focuses on the last aspect, i.e. on how managers are dealing with new institutional frameworks introduced by reforms. Management – or the lack of it- is both seen as one of the *problems* in the public sector, but also as a *solution* to the different problems facing the sector (Degeling & Carr 2004).

A comparative approach is chosen, by analyzing management in two different sectors in Norway, the hospital and the higher education (HE) sectors. In the hospital sector, a particular focus is given to the management reform leading to the introduction of unitary and professional neutral management (HOD 1999). One particular feature of this reform in Norway is that nurses can now become leaders, thus supervising the activities of medical professionals like doctors. In addition, a second reform process is also taken into consideration (HD 2001), namely, the one transferring the ownership of Norwegian hospitals from the counties to the state, which resulted in the introduction of new organizational structures and, in turn, changed the hospitals from public administrative bodies into public enterprises. When it comes to the HE sector, the starting point for our analysis is that of the 2003 Quality Reform which included many aspects associated with NPM, namely: a strong emphasis placed on quality, accreditation and accountability; changes in the distribution of public funding towards teaching and research (with a performance element); efficiency; the rise of ‘strategic science’ regimes (e.g. centers of excellence and innovation); and the institutionalization of a professionalized managerial structure (in tandem with traditional academic structures) within universities. These ‘innovations’ have, amongst other things, led to stronger rationalization, increasing competition, and the centralization of decision making procedures, thus setting in motion a series of related tensions

and dilemmas around the ways in which HE systems and institutions are steered and internally governed.

Due to the high level of expertise and task complexity, the occupational groups in hospitals and universities are considered as *professionals* (Freidson 2001), which, in turn, are considered by some as the key actors of the modern welfare state (Kuhlmann 2006). In this position they are given autonomy and professional self-regulation and the right to serve clients and patients (Molander & Terum 2008). Professionals can also be viewed as political actors (Scott 2008) and have the power to acts as mediators between the state and citizens, and in this manner they can pursue their own interests and become a political problem (Abbott 1988; Freidson 1970; Larson 1977). What is more, professionals play an important role in the implementation of government-led reforms (Eymeri-Douzans 2011).

The work of professionals is embedded in the norms and values of the institutions they inhabit, but also originate from their early socialization while undertaking formal training/education (Scott 2008). Different professional types are embedded with various values and norms. This can be viewed as different “institutional logics”, defined as principles that guide and motivate actions for groups and individuals in organizations (Friedland & Alford 1991; Thornton & Ocasio 2008). Logics are historical patterns of cultural symbols and material practices that are socially constructed (ibid). Different logics can work side by side in an organization, yet more often, logics can be conflicting and competitive (Greenwood, Raynard, Kodeih, Micelotta & Lounsbury 2011). That said, within a given local setting – hospital or university - institutional logics serve the critical function of binding the work undertaken by different professionals together (Byrkjeflot 1997), thus guaranteeing a certain degree of organizational coherence albeit not always visible to the naked eye (Cohen & March 1986; Cohen, March & Olsen 1972).

In the context of this paper, the institutional logics in focus are related to professional logics, where various types of professionals have distinct ideals on how to practice management (Abbott 1988; Freidson 1994). Hospitals and Universities, as part of the public sector, are also characterized by a *political logic*, framed around the just access to public services (Scott, Ruef, Mendel & Caronna 2000) and the redistribution of common goods (Thornton, Ocasio & Lounsbury 2012). Administrative procedures are important to reassure equal treatment (Hood 1991; Osborne 2011). Lastly, we take stock of the effects accrued to the rise of a market logic, introduced by NPM and with emphasis on efficiency, economic control and management (Scott et al. 2000).

Given this, the paper compares the types of logics characterizing managers in the two public sectors in Norway, and thus its research question are as follows:

1. *How has management in Norwegian hospitals and universities been affected by the introduction of NPM-inspired reforms?*

2. *How do hospital and university managers in Norway cope with (mediate between) the tensions and dilemmas arising from the interplay of the different institutional logics within their respective organizations?*

These questions are highlighted by a multilevel qualitative study. Research question 1 is highlighting the system dynamics at a macro level with literature review from Norway and globally. The focus is on the effects from NPM in structural changes with consequences for leadership and organization. Research question 2 is focusing on the meso- and micro level to illuminate effects from NPM and the introduction of market logic in institutions characterized of professional logics in management. The empirical material comprises semi-structured interviews with formal leaders at different levels in the institutions. From the hospital sector, we have interviewed 18 managers in a medium sized general hospital in Norway. This is managers at the three levels below the CEO, with a general manager responsibility, sitting in profession neutral positions. The managers come from the medical and nursing profession. From the university sector, we have interviewed 18 managers, of which 8 were at the central administration (Rector, Vice Rector and Administrative Directors) and 10 were at the sub-unit level (Dean and Department Heads).

The findings from this study indicate that, across both sectors management has been introduced, but not in a pure form. The term “hybrid management” has been used to describe the combination of logics. Hybrid here indicates a combination of logics that normally are not combined under one organizational roof or sub-unit. Ironically, NPM reforms have resulted in increased bureaucracy, so hospital and university managers alike are influenced by a “neo-bureaucratic” logic. That said, the data show that the professional logics are resisting the logic of management and therefore the professionals involved (academics, nurses, doctors, etc.) are not leaving the former logic behind, but develop it further as to include the different logics within the organization and that are required to reach daily tasks and strategic objectives. In this hybridity of management, leadership and leaderism becomes important aspects. Hospital and university leaders are emphasizing the relational aspects of the roles, and leadership acts as a catalyzer to handle the different logics in management.

**Key words:** *leadership, management, professional management, hybrid management, hospitals, higher education, Norway*

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## **CREATE, BUILD AND MANAGE ONLINE BRANDS FOR INTERNET COMPANIES**

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### **ABSTRACT**

### **RESEARCH AIMS**

The primary objective of this ongoing research is to identify the main assets that create brand success for internet-only companies. Based on an extensive and systematic literature review, this study seeks to identify the constructs who drive online brands for a successful life. Eighteen articles were identified and from those some preliminary reflections were taken.

### **BACKGROUND**

As Internet usage grows, brands are becoming even more important than they have been in other channels or environments. With new options emerging every day from many unknown providers from all over the world, customers want to choose a supplier that represents a set of values or attributes that are meaningful, clear, and trusted (Kwon and Lennon, 2009). With the proliferation of products, goods and services are easily duplicated or replaceable; brands become in this vein an important asset for simplifying the decision-making process for consumers. Therefore, if we are able to properly manage this asset, then we can create difference, relevance, and affinity (Otim and Grover, 2006). In fact, one of the main factors that consumers use for first distinguishing providers is brand name, which is known to be positively related to perceived levels of brand trust (Ruparelia et al., 2010).

Stand-alone internet companies such as major players like Google, Facebook, Twitter, Amazon or eBay or even small internet businesses worldwide faces the challenge of creating, building and managing a brand that does not carry attributes or values of the physical world. Many authors support that the ease of establishing a brand and the significance of branding in cyberspace are more difficult and more important than many initially suggested (Delgado-Ballester and Hernández-Espallardo, 2008).

### **METHODOLOGY**

*Search Strategy for Quality Papers*

The searches for papers with relevance for this research were made in ABI/INFORM Complete. Having as a starting point that the purpose of this Systematic Literature Review is to use only the best quality papers available were used several filters to leach the database: full-text papers, peer reviewed papers and scholarly journals criteria were selected.

In order to be able to carry out the quality journals selection, was used the Journal Quality List – Fiftieth Edition (5th July 2013), compiled and edited by Professor Anne-Wil Harzing. From this one, was chosen to use the WIE 2008 – WU Wien Journal Rating May 2008 List, which includes only A/A+ journals, and from these were considered all the journals that are under the decided scope of study.

#### *Scope of Study*

We selected all the papers from the following subject areas: Marketing, Entrepreneurship, General Management & Strategy and Management Information Systems - Knowledge Management. With this choice we tried to ensure that we could cover the maximum possible study areas that could address this research topic.

#### *Time Frame to be Examined*

For the time frame to be examined in this systematic literature it was considered the web 2.0 phenomenon as a starting point of the date range to be examined. Web 2.0 describes sites that use the technology beyond static pages from previous sites. The term Web 2.0 was proposed by O'Reilly in 2005 and it has quickly become the new buzzword of Silicon Valley, and references to a turning-point O'Reilly identify in 2004 (Constantinides and Fountain, 2007).

## **SYSTEMATIC LITERATURE OUTCOME**

#### *Several Researches for the Literature Review*

The expressions that best defines the subject of the study were linked to "online" and "internet". Thus, it was concluded that the core of the research would take place with the keywords "online", "brand" and "internet companies". These keywords were joined by terms that reflect the scope of the study, i.e., how to "create", "build" and "manage" online brands.

This way we have reached the terms used in the five researches carried out in this literature review. The choice to perform of this strategy was taken in order to fulfil the objective of trying to include as many articles available on the subject.

#### *The Aggregate Outcome of the Search Strategy*

The sum of the results obtained from the literature review search is shown in Figure 1 as a flow diagram.

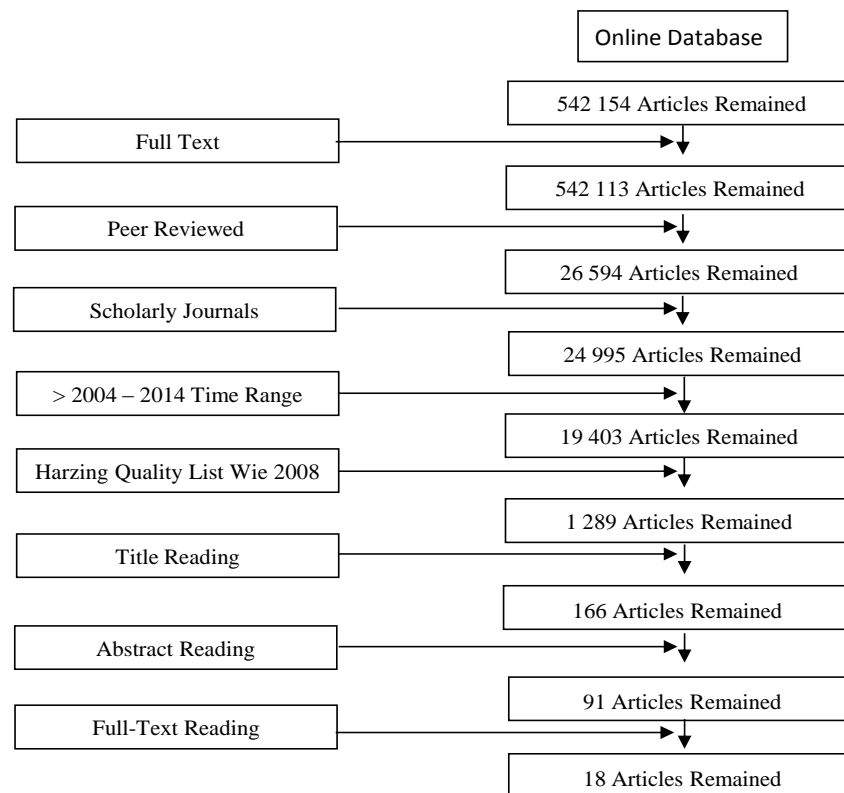


Figure 2. Sum of Searches Selection Process

#### *Data Extraction Form*

In this systematic literature review was created and used a data extraction form in order to extract the data from the selected papers and also to be able to document the process of data extraction. Regarding the elements extracted from the papers they were divided in three main groups: general information, study characteristics and main results. An example with three recent and relevant papers is attached as Appendix.

## **PRELIMINARY FINDINGS**

At this point, we can draw preliminary findings and synthesis. As far as we can observe the Trust construct represents an important role in the online brand life cycle management, regardless we are referring to e-tailers, services providers or product supplier. In the intangible world of online brands, customers are very sensitive to the confidence on online brands and this construct can be crucial for companies to achieve success. Indeed, trust appears by far as main appraiser for online brand loyalty and customer quality judgment constructs. Other assets as consumer engagement (thru experience, habit or even through online communities) and repurchased intention motivations are not to ignore at this moment as important constructs that influence online brand management and that can lead to an

explanatory model for the theoretical question under study. Detailed results of this research will be presented at the EuroMed 2014 conference.

**Keywords:** Internet Marketing, Online Marketing, Digital Marketing, Online Brands, Internet Companies, Online Environment, Online Brand Quality Perception

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## APPENDIX

Paper Number	Authors and Year of publication	Journal	The base theory of the study or construct	Adopted methodology and sample (and characteristics)	Main Conclusions	Limitations and future research	Managerial Implications
1	Hur, Ahn, Kim (2011)	Management Decision	Brand Community Commitment; Loyalty Behaviours; Brand Loyalty	Quantitative approach; Primary data; Partial Least Squares (PLS) Analysis; one-on-one personal interviews; sample size of 200 Chinese female online brand community users (based on Beijing or Shanghai)	Identified that brand community trust and affect leads to brand community commitment; and that brand community commitment leads to brand loyalty behaviours; brand community commitment have a strong effect on word-of-mouth	Limited to treat brand community commitment as a unidimensional construct; future research may consider Multidimensional constructs and relational variables, such as self-congruity; consider generate more valid measurement items for WOM through other measurement scales in communication and loyalty areas	Brand community activities influence relationship among community participants, brand and the company; enhancing customers' loyalty through a space in which customers can directly participate; trust and affect are vital factors in enhancing customers' brand community; commitment word-of-mouth marketing mediated by brand communities very effective
2	Benediktus et al. (2010)	Journal of Retailing	Trust Construct; Purchase Intentions	Quantitative Approach; Hypotheses testing through online scaled response questionnaire; Primary data; Study 1: sample size of 302 undergraduate students; Study 2: sample size of 261 nonstudent respondents	Favourable consensus information led to increased trustworthiness perceptions and purchase intentions; physical presence stimulates trustworthiness of unknown retailers, but brand familiarity presents similar level of benefits (convey trustworthiness with consumers and increase purchase intentions)	Both studies examined effects for only one product category; Future research can compare physical store presence effect across products with search-dominant versus experience-dominant attribute; can also include other trust cues as price disclosure, real-time advice and ease-of-navigation	Consumers are very cautious when making purchases on the Internet, therefore retailers should develop trust with their consumers through brand familiarity, physical presence and consensus information
3	Sashi (2012)	Management Decision	Customer Engagement; Relationship Marketing	Examination of practitioner views of customer engagement followed by a discussion of its links to the relationship marketing; Formulation of a conceptual model.	Customer engagement focus on customers and their needs, provide superior value relative to competitors (generating, disseminating, and responding to customer needs and market orientation) and build trust and commitment with customers.	Implicit hypothesis need empirical studies; Future research can examine the mix of social media, other digital media, and non-digital media appropriate for each stage of the customer engagement cycle	Connect and interact between sellers and current customers with potential customers and succeed in turning them into transactional customers creates the possibility of their transition through subsequent stages of the customer engagement cycle, with some of them eventually becoming fans; Customer engagement turns customers into fans.

## ANTECEDENTS AND CRITICAL SUCCESS FACTORS IN CONTRACTUAL NETWORKS: NEW INSIGHTS FROM ITALIAN CASE STUDIES

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### ABSTRACT

Networks are motivated by, among other things, the need to improve production efficiency, share research and development skills and gain access to new markets. Each of these aspects has become increasingly important, especially for small to medium enterprises, whose resources are often significantly constrained (Ahuja 2000; Håkansson et al. 2009).

The literature on networks is vast and can be traced in both the strategic (Ahuja 2000; Barney 1991; Gulati 2007; Lavie 2007) and organisational (Grandori & Soda 1995; Knight & Harland 2005; Verwaal & Hesselmann 2004) fields. Among the different networks' forms and agreements, both structured and informal, we focus on a tool introduced in 2009 by Italian law to improve firms' competitiveness and innovation attitude. The tool, named '*contratto di rete*' ('business network contract') is a private agreement between two or more firms aimed at exchanging information or services, collaborating in determined fields to attain the firms' business purposes or jointly managing common activities. The business network contract is a form of structured and flexible cooperation that allows firms to share information, resources and activities while maintaining their legal autonomy and independence. Since its introduction, the business network contract regulation has often been updated. In March 2014, registered contracts in Italy numbered 1,380, with 6,594 firms involved.

In the literature, many studies focus on the antecedents of networks and strategic alliance performance (Christoffersen 2013); however, there is a lack of consensus about what makes the business network contract effective. This paper intends to contribute to the existing literature by investigating how the antecedents blend and contribute effectively to the success of networks in realising those strategic aims not achievable by single firms. In line with the explanatory nature of our research objective, we chose a theoretical sampling case-study approach (Eisendhart 1989; Yin 1994; Siggelkow 2007; Easton 2010). We selected two network case studies: Racebo, a vertical network among producers and subcontractors for the automotive and motor industry aimed at responding to global competition and the economic downturn of the industry; and Rete per la tutela dei funghi di bosco (Safeguarding forest mushrooms network), a network among forest mushroom producers aimed at enhancing the quality of the product and improving firms' competitiveness.

As showed in the literature concerning the antecedents of strategic alliances (Christoffersen 2013), these alliances rely on some behavioural attributes: commitment, trust and cooperation. Our research

highlights the ways in which these attributes are connected and the other elements critical to the success of a network contract.

From the analysed case studies, we found that the *commitment* required by a network contract can be relatively low. All the firms agreed that the contract can produce relevant advantages for small to medium enterprises with only a small investment because its first function is to allow small firms to reach a 'critical mass' with respect to the different aims stated, from time to time, by the network (e.g., access to foreign customers requiring a turnkey product, dialogue with the institutions to obtain a new product's regulation, greater power over distribution channels). The commitment can be relatively low if firms *trust* each other and if some operative decisions can be delegated to a charismatic leader (usually the president of the network), reducing the occurrence of deadlocks in decision making. This leadership requirement appears to be a new element, adding to those already cited in the literature, such as unequivocal power relationships (Koenig & van Wijk 2001) and control (Christoffersen 2013).

The creation of trust among firms in a network is a basic antecedent of *cooperation*, which the interviewed firms usually relate to a willingness to share information and common management issues. This sharing is dependent on the level of *transparency* of the firms and is a fundamental element in the construction of the network's strategy. Another common element emerging from the interviews was a step-by-step definition of the strategic actions of the network—a type of emerging strategy that enlarges on what the firms agreed to in the original network contract. Transparency exposes firms to vulnerability and requires an open-minded approach to business, in which the entrepreneur reduces the tendency to individualism and the fear of losing their 'identity' in order to reach *cultural compatibility* with their partners. Both case studies were characterised by the presence of second-generation entrepreneurs, an element that appears to favour a more open business culture, although only if first-generation entrepreneurs are willing to trust the younger network members.

Other relevant factors affecting network success include firms' dissimilarities (Christoffersen 2013). The interviewed firms agreed on these propositions: *size differences* can be a problem in networks due to the consequent differences in investment capacity; and *geographic distance* can be a concern in terms of governance because it discourages participation in meetings, where strategic and operating decision are often taken. *Industry relatedness* is usually the impetus for a network contract because firms often form a network to collaborate, to share a common business activity and/or to solve common problems. The level of industry relatedness is connected to the *competition* issue, which was treated differently in each of the analysed cases. In the Racebo case, the firms formed a supply-chain network in which the presence of two directly competing firms was excluded. In the mushroom producers' case, the firms cooperated without competitive intent, with the aims of solving a common production and product quality issue, and creating a competitive advantage for the network's firms in order to challenge those

outsiders using 'unfair' competition. In both cases, the emerging idea is that the competitive advantage of the network firms defeats the companies outside the network while a cooperative intent prevails over a competitive intent inside the network (Stiles 2001). The exclusion of direct competitors from the network is a method of transferring conflicts outside the contract boundaries. Interviewed firms articulated feelings such as envy of the network firms' success and reported the construction of an 'invisible wall' dividing the network from the rest of the world.

*Conflict* is also present inside the contract, and usually relates to a different vision of the operating solutions to reach common network purposes. Conflicts regarding these purposes are usually solved by choosing strategies on which all the network participants agree. However, a certain level of conflict is unavoidable because although network firms become part of a new collaborative entity—metaphorically referred to as a 'flexible elephant' (Network Case 1—Director of a participating firm)—network contracts leave the participant firms autonomous. Therefore, the governance and management of the network is based on a balance in which *personal relationships* play a crucial role. All of the interviewed firms agreed that personal relationships must be cultivated among network firms, and stressed the importance of informal meetings to strengthen the sense of belonging to the 'group'. Formal and informal meeting occasions reinforce trust and create unplanned strategic opportunities that characterise a form of collaboration that is formalised but not in all the details and possible outcomes of the contract. In both analysed cases, the natural consequence of network contracts has been (or is expected to be) a merger between some of the companies, because 'network contract is an engagement' (Network Case 1—President of the network).

The idea that a network produces unexpected positive side effects, including a common intention to create a more competitive critical mass, could be one of the reasons why firms usually report difficulties in *measuring* the direct economic impact of network participation. Instead, the success of the alliance is usually measured through operating indicators, such as the concrete results of specific common initiatives, or it is described in terms of good perceptions stemming from the extrinsic evidence of ongoing participation and the *commitment* of the firms in the network. The research highlights a logical loop in which the different antecedents or critical success factors described in the literature are connected, as evidenced by the case studies: commitment is related to trust, cooperation and transparency, and requires some features of cultural compatibility and a certain balance in dissimilarities and relatedness; competition and conflict inside and outside the network can be managed by nurturing personal relationships; and network success measurement is not a primary issue for the analysed firms, and can be appreciated in terms of the ongoing commitment of the participating companies.



**Keywords:** *Networks, Strategic alliances, Business network contract, Success factors, Case studies, Italy, Cooperation, Competition, Trust, Commitment.*

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## PERCEIVED BUYER CONFIDENCE IN BUYER-SUPPLIER RELATIONSHIPS

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### ABSTRACT

Suppliers and buyers in business to business (B2B) relationships seek to build closer relationships to improve efficiency of the transactions. At the same time, they are vulnerable for potential hazards, such as opportunism. Foresighted managers are likely to choose exchange partners to whom they are confident that they will not behave opportunistically. While the notion of trust has been extensively conceptualized and analysed, surprisingly few scholars have focused on the concept of confidence and the antecedents of this in B2B relationships. Despite the importance of confidence in business relationship, very few scholars have empirically investigated the antecedents of this concept. In line with previous literature, this paper maintains that trust and control are the key sources for confidence. We use networks and reputation as indicators for trust, and ex ante contractual efforts and ex post contractual specifications as indicators for control. All these indicators have a positive impact on confidence. Trust and control seem to supplement each other as sources for confidence.

**Keywords:** *Perceived buyer confidence; Networks; Ex-ante contractual term specificity; Ex- post contractual term specificity; Reputation*

# **AN INVESTIGATION INTO THE IMPACT OF CORPORATE REBRANDING UPON CORPORATE PERFORMANCE IN A BOTTOM OF PYRAMID (BOP) CONTEXT: A CASE STUDY FOR TELECOM INDUSTRY IN BANGLADESH**

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## **ABSTRACT**

In a small developing country- Bangladesh, five companies out of six in the telecom industries did corporate re-branding in recent times. Re-branding also observed in other industries as well. Therefore, this research is going to investigate the relationship between corporate rebranding and corporate performance in a bottom of pyramid (BOP) context. In order to do that the identified research objectives are: to present a conceptual and empirical analysis of corporate re-branding in telecom industry in Bangladesh; to explore the impact of corporate re-branding upon company performance in telecommunication companies and to find out the critical factors for success or failure of re-branding in a Bottom of Pyramid context.

## **1. INTRODUCTION: RELATIONSHIP OF THE PROPOSED RESEARCH TO PREVIOUS WORK**

In an increasingly competitive business world, survival and success depend on the aptitude to evolve gradually to meet new challenges that arise (Dubey and George, 2012). Some organizations elect to go much further and see corporate rebranding (CR) as the best way to remain competitive (Tevi and Otubanjo, 2013). Corporate rebranding is usually expressed by change of name, logo or even changes of slogan of a company. But in this modern business world it is not simply a tactical change in name or logo (Kay, 2006). It is an important marketing strategy decision of the corporation undertaken as a result of a change in the customer or employee base, new products and services or a revisited strategic position and value proposition (Cettier and Schmitt, 2008). Sometimes corporation can do re-branding for its international development and shift in emphasis from one business line to another (Melewar, Hussey and Srivoravilai 2005). Numerous prominent companies rebranded themselves such as Philip Morris, British Steel, Andersen Consulting, Silly PepsiCo, ExxonMobil and SciFi Channel etc. (Dubey and George 2012, Male, 2010, McCarthy, 2008). Cettier and Schmitt (cited above) in their study revealed that half of all rebranding activities were successful in the period 1995 to 2004. However, most of the recent corporate re-branding was unsuccessful (Male, 2010).

So, it is clear that corporate re-branding entails risk (Bravo, Montaner and Pina, 2009). That means the new brand may fail to attract new customers and potentially alienate existing ones. Despite the entailed risk corporations are involved in rebranding activities with the hope of better corporate performance. In line with the developed countries, many corporations of developing countries also rebranded in last decade (Machado, et. al., 2012). In a small developing country Bangladesh, five companies out of six in the telecom industries observed corporate rebranding in recent times. Rebranding also observed in other industries as well. The recent corporate rebranding in Bangladesh influences the researcher to undertake this study.

### **1.1 Rationale for this research**

Previous research related to branding revealed that the consumers of developing countries, also known as Bottom of the Pyramid (BOP) customers, are not concern about the branding and corporate identity (Dubey and George, 2012). However, Companies (MNC's and Local) operating at BOP level are focusing on branding and re-branding activities to create unique corporate identity (Machado et. al, 2012). The vast literature on brand management has largely ignored corporate rebranding. But few researchers acknowledged the importance of corporate rebranding and its entailed complexities and risks (Tevi and Otubanjo, 2013).

In the available literature of corporate rebranding researchers mainly focused on developed countries and world renowned companies (Bravo, Montaner and Pina, 2009). However, few studies are also available for developing countries (Machado, et. al., 2012) and as per my knowledge no study was conducted in the context of developing country Bangladesh. Moreover, the reasons to rebrand can come from changing external conditions, weaker competitive position, changing ownerships structures and/or changes in corporate strategy (Hankinson and Lomax, 2006; Muzellec and Lambkin, 2006). All those factors are related to organizational perspective. One of the possible reasons for recent rebranding at telecom industry in Bangladesh can be changes of ownership structure. So, it raised an important research question, whether costly rebranding activities only for changes of ownership structure is helping the companies to improve corporate performance in a BOP context or not. The empirical investigation will help to develop a new theory regarding driving forces for rebranding and subsequent corporate performance in the context of developing country. It is yet to be identified that which factors influences the company to be rebranded though they are operating at BOP level and what are the driving forces for success and failure of rebranding activities in a BOP context. Therefore, the researcher is interested to explore the organizational perspective of rebranding for telecom industry in Bangladesh which will contribute to the literature by developing a comprehensive framework for rebranding at BOP context.

## **1.2 Research Objectives and Questions**

### **1.2.1 Objectives**

- To present a conceptual and empirical analysis of corporate re-branding in telecom industry in Bangladesh.
- To explore the impact of corporate re-branding upon company performance in telecommunication companies.
- To find out the critical factors for success or failure of re-branding in a Bottom of Pyramid context.

### **1.2.2 Research Questions**

- i) Are the main reasons for corporate rebranding in telecom industry in Bangladesh different from developed countries?
- ii) Is there any long-term impact of corporate rebranding upon corporate performance for the organizations operating at telecom industry in a country of BOP consumers?
- iii) What were the critical factors behind the success and failure of corporate rebranding in BOP level?

## **2. METHODOLOGY**

Glaser (1992), defines methodology as the theory of methods and gives an insight to the audience to gain better understanding of past research and give basic idea on how to proceed in future (Gammelgaard, 2004). In the 20th century, qualitative research has not received widespread use and acceptance. However, today the use of qualitative research is increased as a result of inefficiency in quantitative research. The aim of qualitative or interpretive studies is to reveal subjectivity, complexities, nuances, uniqueness and details that are usually ignored in quantitative studies (Klein and Myers, 1999; Mason, 2002). At the same time, qualitative results frequently express verbally the interpretation of something into text which could create an understanding of relationships or complex interactions.

To accomplish the aim of this research and to answer the research questions, the researcher has opted for a qualitative methodology by adopting a case study method to gather rich information and an insight into the phenomenon. According to Denzin and Lincoln (2005) qualitative research means “a situated activity that locates the observer in the world. It consists of a set of interpretive, material practices that make the world visible”.

### **2.1 Research Strategy: Case Study**

This research adopts a case study strategy for the study. Eisenhardt (1989) stresses that “the case study is a research strategy which focuses on understanding the dynamics present within a single setting”. It is been proven from past research that case study can be used in both qualitative and quantitative research (Yin, 2009; Yin, 1994; Eisenhardt, 1989; Ellram, 1998). Case studies are often recommended for

exploratory and theory building research (Eisenhardt, 1989; Handfield and Melnyk, 1998; Yin, 2009). Yin (2009), explains a “case study is an empirical inquiry that investigates a contemporary phenomena in-depth and within its real life context, especially when the boundaries between the phenomena and the context are not clearly evident”. Therefore, the use of case study strategy in understanding the rebranding and corporate performance relationship in the Bangladeshi telecom industry context is justified.

Regarding the number of cases in a case study, there is also an overlapping argument whether to use single or multiple cases. This actually relates with what generalisations can be drawn from case studies. Both Eisenhardt (1989) and Yin (1994) suggest that one or many cases can be included in a case study. Yin (1994) and Irani et al. (2008), for example, claim that there is nothing wrong in using one case in case study research because “one can often generalise on the basis of a single case” (Flyvbjerg, 2006). Other researchers, such as Ellram (1996), claim that a single case is used to “test a well formulated theory, an extreme or „unique case”, or a case which represents a previously inaccessible phenomenon”. However, in this research, the researcher believes it is good to have multiple cases in order to gain rich data about the rebranding and corporate performance relationship for theory building and replication purposes (Eisenhardt, 1989; Miles and Huberman, 1994 and Yin, 2009).

It is significant to note that in order to perform a qualitative case study research it should be guided by case study protocol as suggested by past researchers (Eisenhardt, 1989; Rowley, 2002; Yin, 1994). This protocol needs to include an overview of the project, field procedures and case study questions (Rowley, 2002). The next section will discuss this in detail.

## **2.2 Case Study Protocol**

Case study protocol is a set of guidelines for performing research which aim to summarise the constructs of the conceptual model (Eisenhardt, 1989). It has been identified as a key approach of increasing the reliability of case study research and is intended to guide the researcher in carrying out data collection. Ellram (1996), in a similar argument, explains that description of the data collection in a thorough protocol will increase the reliability of the research project. For the purpose of this research, a well-established methodological guideline is adopted, as suggested by Eisenhardt (1989), Flynn et al. (1994), Meredith (1993), Voss (2003), and Yin (1994) in order to increase validity of the research findings. According to Eisenhardt (1989), case study protocol is divided into three phases. The researcher will follow these three steps in conducting this research. The first phase is known as getting started where, at this phase, it includes the process of selecting the case and crafting an instrument protocol. In phase two, known as entering the field, data collection, analysis of the data and shaping the propositions is completed. In phase three, which Eisenhardt (1989) named as reaching

closure phase, it represents enfolded literature. In other words, at this stage, the researcher makes comparison with conflicting literature and comparisons with similar literature. Also, at these phases, theoretical saturation will be reached when the researcher discovers that every respondent says the same thing and, at this stage, closure of the case study research is reached.

However, stage two starts with the primary data collection through interview. Interview is a purposeful conversation between two or more people (Kahn and Cannell, 1957) where the interviewer directs the interview and the interviewee, known as the respondent, responds to the questions of the research (Easterby Smith et al., 2008; Robson, 2002). Interviews help the researcher to obtain valid and reliable data that are pertinent and relevant to the research questions and research objectives. The primary data collection method in this research is semi-structured interview conducted with five organisations (out of six organizations in telecom industry five organizations rebranded) along with observation and document review. These 5 organisations represent 5 case studies.

In this research, the cases are selected based on a purposive sampling technique. A purposive sampling technique enables the researcher to select cases that will best enable researchers to answer the research questions and research objectives. This type of sample is frequently used when working with small samples such as in case study research and when the researcher wishes to select cases that are particularly informative (Neuman, 2005; Saunders et al., 2009).

## **2.3 Research Design**

It could be concluded that the researcher designed this research with critical flows; taking into consideration the issue of rigour and trustworthiness in this research as it is emphasised that rigour is significant to both qualitative and quantitative study; it is important to note every process involved in performing this research. The flow of the research design taken in this research is literature review; develop proposition; develop conceptual model; exploration to the field, validating and improving the proposed model; sampling; designing case study protocol; research process; data collection; data analysis; trustworthiness of the research; revised propositions and revised model etc.

## **2.4 Data Analysis**

### **2.4.1 Transcribing the Qualitative Data**

In this research, before the data is analysed, the researcher firstly transcribed the data from the interview from the recording (Saunders et al., 2009). The interview is audio recorded and subsequently transcribed which reproduces a verbatim written (word processed) account. As claimed by Saunders et al. (2009), the transcribing process is about not only being interested in what participants said, but also the way they said it. In this research, the task of transcribing the data from recorded to written text took much time because not only the words but also the tone of what is said is

transcribed; in addition the participant's non-verbal communications are recalled. It needs to ensure that it can be linked to the contextual information that locates the interview.

#### **2.4.2 Qualitative Data Analysis**

It is recognised that all qualitative data analysis including case study should follow a general analytic strategy, which defines priorities for what to analyse and why (Yin, 2009). It is similar to what has been proposed by Miles and Huberman (1994) and Silverman (2005). It should be noted that a helpful starting point is to play with the data. Yin (2009) and Miles and Huberman (1994) set guidance in order to comprehensively describe and summarise the data from the fieldwork. They are, for example, to put the information in different groups; make a category and place the evidence within categories; create data displays such as flowcharts or graphics to examine the data; tabulate the frequency of different factors and see the relationship among factors. In this research, data analysis will be started within the case analysis and follows with cross-case analysis. Each of the findings will be explained properly. There are approximately 15 methods of analysing qualitative data and this research adopts qualitative content analysis or thematic analysis. It has been chosen as it could determine the effect of the findings through the development of the research proposition as a result from having reached saturation for every code.

#### **2.4.3 Qualitative Content Analysis**

Qualitative content analysis, also known as thematic analysis, is one of the popular methods in analysing qualitative data. It is an interpretation method for qualitative interviews (Kolbarcher, 2006; Zhang and Wildemuth, 2006) which involves activity like summarising raw data into categories or themes based on valid understanding and interpretation. This process uses inductive reasoning, by which themes and categories emerge from the data through the researcher's careful analysis and continuous comparison. Also, importantly this process should not exclude deductive reasoning, where a deductive thematic analytic approach is also useful in this process (Miles and Huberman, 1994; Patton, 2002). According to Hsieh and Shannon (2005), there are three approaches to qualitative content analysis, namely, conventional qualitative content analysis, directed content analysis and summative content analysis. However, in this research eight steps of qualitative content analysis (Zhang and Wildemuth, 2006) will be followed.

#### **2.4.4 Strategies and Techniques Use in the Qualitative Data Analysis**

This research will use two general strategies as proposed by Yin (2009): developing case description; and relying on theoretical proposition. Data analysis will be started with a case by case analysis, also known as within case analysis. The cross-case analysis will also be performed where the researcher looks at the similarities and differences featured among the case. In highlighting the research findings in this thesis, the researcher also uses a case-ordered descriptive matrix in order to provide descriptive



data from all the cases (Miles and Huberman, 1994). It should be explained, here, that the researcher will also use a case-ordered effect matrix to discuss the findings in each case and overall conclusion as suggested by Miles and Huberman (1994). What is more, as a result the conclusion of each theme will be made for every case discussion.

#### **2.4.5 Tools in Analysing Qualitative Data**

Qualitative content analysis could be done manually and with the existence of software computer tools. As suggested by Bazeley (2002), the use of computer software in analysing qualitative data can increase the rigour. In the last decade, many researchers have mainly used manual thematic analysis in order to analyse qualitative data. However, at present with the development of information technology (IT), the use of computer software can be seen as strategic tools to help the researcher to conduct analysis systematically. In this research, the researcher will use the NVivo 9 software in order to deal with the complexity of data as it functions as a strategic project management tool where all the interview data could be stored in one place, together with other sources such as documents, observation notes and photographs taken during observation. At the same time, an analysis notes folder can be added and this, of course, will make the analysis process more organised, systematic and comfortable to the researcher when undertaking analysis, thus enabling the coding process to be performed more systematically, with data from coding easily been derived through matrix coding tasks.

#### **2.4.6 Verification, Validation and Triangulation**

As an interpretive researcher, it should be highlighted, here, that there is a difference between determining the effect of the findings from qualitative research with the positivist research paradigm which mostly uses structural equation modelling (SEM). Even in evaluating the quality of the research, the criteria are different and a positivist paradigm uses validity, reliability and objectivity to value the quality of research. According to Bradley (1993) these three conventional criteria are not suitable for the interpretive paradigm that uses qualitative content analysis as the method of analysis as they are different in basic assumptions, research purpose and conclusion process. In order to ensure rigour and to validate and verify this current research, the researcher will deal with the issue of trustworthiness by following the rules developed by Lincoln and Guba (1985) and also followed by other qualitative researchers (Zhang and Wildemuth, 2006). It is significant to highlight that in evaluating interpretive research work, the researcher must make sure that they have these four criteria, namely, credibility, transferability, dependability and confirmability (Lincoln and Guba, 1985). Each of these four criteria has a different description and points to ensure the certainty of the research. According to Bradley (1993), credibility refers to “adequate representation of the constructions of the social world under study”. In other words, it actually ensures the accuracy of the

research. For example, in this research, triangulation, checking interpretation against fresh data, peer debriefing and member checking will also be performed. This process is recognised to enhance the credibility of the research (Lincoln and Guba, 1985).

### 3. CONCEPTUAL FRAMEWORK

As the case study method would be followed for this research, a conceptual framework has been developed and presented in the figure below. The developed conceptual model as a result of the discussions so far, will be validated during the empirical fieldwork. Figure shows that there are three main factors being explored in this research, namely internal, external and outcome factors, with regard to rebranding at BOP level, and each of these factors consists of several sub-factors. The main outcome expected is a significant positive effect of rebranding on company profitability. Figure also highlights “other factors” as the researcher believes other issues may come to light during the empirical work in consequence of the respondents wanting to share ideas during the interview sessions. This is because, as mentioned earlier, the research is based on BOP customer that might influence the relationship as claimed by previous researcher. Also, specifically, at the end of the interview, respondents will be asked whether there are any other matters they might want to share, and from this prompting, other factors may emerge.

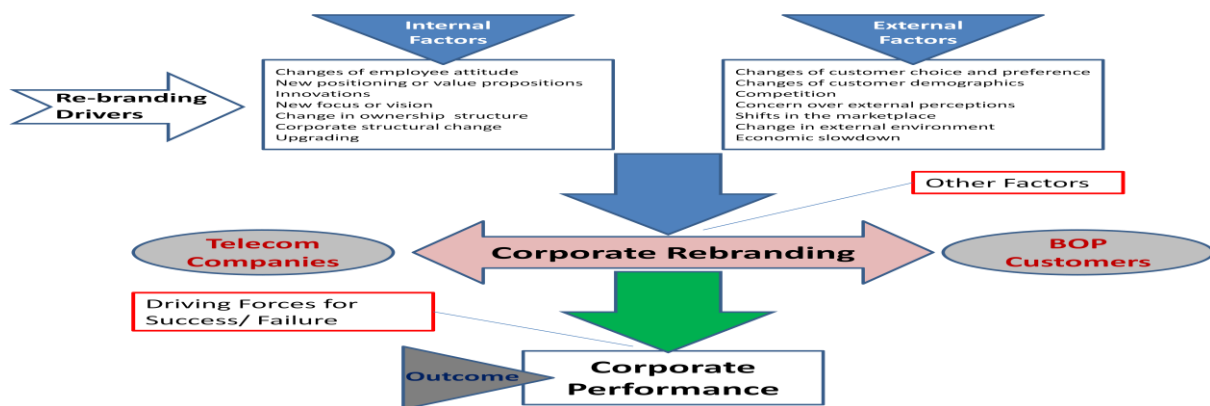


Figure: Conceptual Framework

Source: Researchers own development

### 4. EXPECTED OUTCOMES

This research has been undertaken as a result of the inability of previous studies to provide a clearer understanding of the issue rebranding and its success at BOP level. As discussed earlier, the internal

and external factors have an import influence on the rebranding programme. However, it is expected that the factors that influence the companies to be rebranded could be different for developing countries specially the countries with BOP population. Therefore, this research will further explore the re-branding driver in order to enhance the current theory relating to the rebranding practices. Additionally, researcher expects that rebranding at BOP level will have a positive impact on company performance in the long run though the impact on short run could be negative. As the research will be carried out specifically for the Bangladesh telecom industry which is a developing country with BOP population and it is expected that the critical factors for success or failure would not be the similar in regards to developed country. Finally, other factors might emerge from the research which will help to explain the rebranding activities in BOP market.

**Keywords:** *Bangladesh, bottom of pyramid (BOP), rebranding.*

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## THE REFORM OF GOVERNMENTAL ACCOUNTING STANDARDS IN GREECE: DECISION-MAKING THROUGH THE “GARBAGE CAN”

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### ABSTRACT

The last decades the New Public Financial Management (NPFM) concept promotes the necessity of using financial management techniques for the development of an efficient and effective public sector. The changes of financial reporting systems emphasising on the application of accrual based accounting and even towards the adoption of international accounting standards (e.g. International Public Sector Accounting Standards) constitute typical forms of NPFM reforms (Guthrie *et al.*, 1999; Lapsley *et al.*, 2009). The reasons leading to such reforms could be traced in the need for improved accountability, transparency and decision-usefulness of the information provided by the public sector requested by the numerous different users (Kober *et al.*, 2010). These users are members of the parliament and constituents of the state, but also other interested parties, such as lenders and other resource providers. Especially in periods of severe global recessions, states have to abide by recommendations deriving from external resource providers (Carpenter and Feroz, 2001). Therefore, resource dependency plays also a significant role in the accounting reforms in the public sector.

Within this context, the Greek central government recently proceeded in the reform of its governmental financial reporting system. The Greek state assigned this task to a commission of experts which brought together public sector executives and external consultants. The output of the commission was a set of new accounting standards under the modified-cash basis of accounting which superseded the until-then applied cash based standards. This move intended to improve the quality and usefulness of the provided accounting information, which had been questioned by both external organizations such as the International Monetary Fund (IMF), the European Commission (EC) and the Organization for Economic Cooperation and Development (OECD), as well as by internal users (voters and public managers) (Ministry of Finance, 2009). Furthermore, this reform was launched as an interim step before a future move to full accrual accounting (Cohen *et al.*, 2014).

The scope of the present paper is to study the standard setting process in the central government level in a country that operates under special circumstances of financial strain. Greece has been deeply injured by a severe financial crisis that has been evident to the country since 2009, and resulted to the country's entering in 2010 the financial support mechanism of the IMF, the European Central Bank (ECB) and the E.C., commonly referred to as Troika. The fund providers within the technical memoranda emphasize and demand the modernizing of Greek public sector, indicating several

structural reforms that touch upon financial management and governmental accounting systems. Within this framework, we analyze the decision-making process during the development of the new set of accounting standards by unraveling the role of different actors. As the success of such reforms relays heavily on the role and incentives of the involved actors (Niskanen, 1971; Giroux, 1989) we apply the theoretical lens of public choice theory in an attempt to understand the incentives of bureaucrats, external consultants, voters, political leaders and resource providers that have played a role in the reform process. Decision-making in the public sector is characterized by limited economic rationality, which often drives public sector entities towards acting as “organized anarchies” (Cooper *et al.*, 1981). The garbage can model provides insights that facilitate the understanding of the choices made while deciding on the set of governments accounting standards. Our theoretical framework is informed by the outcome of interviews and informal discussions with members of the commission that developed the new set of accounting standards, as well as by relevant archival data (e.g. IMF and OECD reports, Greek Ministry of Finance reports, etc.).

We consider that Greece is an interesting setting to study accounting standards decision making in the central government level, mainly for two reasons: First, because the country is under a vortex of financial and administrative reforms and this transition is very important if seen through the light of Greece’s resource dependency. Second, because the Greek public sector is characterized by a deeply cultivated bureaucracy (Sotirakou and Zeppou, 2005). This latter characteristic offers another interesting dimension to the research; how decisions are made –and who eventually makes them– in a country where strong bureaucracy prevails. The findings indicate the lack of effective monitoring of the process from both politicians and external resource providers. Eventually, the set of standards developed is largely the outcome of the incentives and the cooperation of bureaucrats and consultants. The results moreover, provide evidence of unclear technology, fluid participation and problematic preferences, which indicate decision-making through the “garbage can”.

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## USING CHOICE EXPERIMENTS TO EVALUATE CONSUMERS PREFERENCES ON ORGANIC WINES

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### ABSTRACT

### OBJECTIVES

Although research on consumers preferences towards organic food appears copious and exhaustive, much is still to be accomplished about the perception of consumers with respect to organic wine. The new European regulation on organic wine clearly opens new opportunities of growth and competitiveness for producers. The establishment of the Reg. (EC) No 834/2007 complemented by Reg. (EU) No 203/2012 marking the transition from the “made from organic grapes” label to the “organic wine” label, enhanced the economic-ecological and social meaning of oenological products. Although the wine consumer retains a tendency to focus more on the price of the product and still appears distracted from the packaging and brand awareness (Forbes & Dean, 2013; Mueller & Szolnoki, 2010), new trends in preferences move towards innovative oenological products characterized by low content in sulphites and lower content in alcohol. Exposed to the pressure of demand changes, evolution of consumer preferences and competition of global markets, wine producers might see in consumer expectations for quality, sustainability and safety a significant opportunity to differentiate their products according to different markets segments particularly focusing on higher added value products (Chiodo et al., 2011). When selecting a product the consumer is often unable to give a scale of priorities and a monetary value to product's attributes. Instead, the consumer chooses the product as a whole or by means of its complexity of tangible and intangible attributes. Wine belongs to a product category whose consumption can be considered of hedonistic type (Scarpi, 2005), since it stimulates ‘multi-sensory, fantasy and emotional aspects of consumer's usage experience’ (Hirschman and Holbrook, 1982 p.92). Moreover, wine consumption assumed over years, an important cultural and social value among habitual consumers. The evocative meaning of wines recall the territory of origin and this function especially emerge among consumers inclined to travel in wine regions (Santos & Ribeiro, 2005). Interesting might be in our opinion, to address monetary value of organic attribute of wines within a target of consumers willing to consumption of quality wine and travel to live the evocative experience that wine can bring with itself. The work has the aim to address the value that

this particular segment of consumer gives to the "organic" component of wines compared to other attributes such as Protected Designation of Origin, region of origin and price. The study might imply interesting marketing suggestions for local wine companies selling their organic wines through the HORECA distribution channel, that mostly supplies foreign visitors.

## **METHODOLOGY: CHOICE EXPERIMENTS DESIGN AND MODEL ESTIMATION**

The methodology consists of Choice Experiments (CE), which has its origins in Conjoint Analysis methods, used as well in marketing research and transport economics (Louviere and Hensher 1982, Louviere and Woodworth 1983). The CA methods have evolved and developed as Choice Experiments (CE) to address the economic value of public goods (Burton and Pearse, 2001; Burton et al., 2001; Travisi and Nijkamp, 2004). CE tools combine the theory of value (Lancaster, 1966) and the Random Utility Model (RUM) proposed by McFadden (1974) to assess consumer preferences. In the field of contingent valuation elicitation the choice models have received increasing attention in recent years showing significant advantages compared to other tools. The choice modelling is applicable in situations of discrete choice or when the decision-makers choose among a set of alternatives where the number of alternatives is a finite set and in case they are mutually exclusive. Moreover, the set of alternatives must be exhaustive: all possible alternatives are included and the respondents have to choose an alternative contained in the collection. The CM also differs from other methods because the Declare Preferences respondents are shown various alternative descriptions of the property that differ from the different levels made by the attributes through which they are described, and asked them to choose the alternative that most prefer. The CM, then, is based on the theory demand by Lancaster (1966), whereby each well can be described according to a set of characteristics (Hanley, 1998). The goods are different, so, for the different intensity or size that can take on different characteristics. Consequently, the utility that it arises from the consumption of these goods is seen as a weighted sum of the utilities attributable to each feature (attribute). The basic theoretical assumption is that individuals in their actual behavior as buyers, are able to choose between alternative options, each one characterized by a finite number of attributes articulated in different levels (Burton, 2001). With reference to purchase choices, according to the Random Utility Model (RUM), the consumer takes their own choices, identifying alternatives, providing the highest level of utility, i.e. the probability that a consumer chooses an alternative characteristic increase the utility associated with it. The experimental design section explores the construction of the design and the descriptive statistics of the sample. Under the suggestions of the prominent literature on the consumer preferences of wine and the choice experiments we proposed to the respondents the choices of three products characterized by

four attributes. The methodology implied the creation of a hypothetical market of wines with multiple choice alternatives defined on different levels of the relevant attributes. For each set of products respondents were asked to select the most preferred one. We considered the following attributes level for the organic wine: (i) origin: for the purpose of the research we chose to added attributes that states the consumer preference towards wine produced in the Apulia region or produced in the rest of the national territory; (ii) the core attribute of characterizing the consumer choice is the organic label (presence/absence); (iii) Protected Designation of Origin (presence/absence); (iv) three level of prices: 3-7 €/bottle; 7-12 €/bottle; 12-20 €/bottle. The Choice Experiments were conducted in June and July of 2013 in South Italy. The data have been collected during the event “Calici di Stelle” (“Starry Glasses”), in Trani (Apulia, South Italy), which is a annual wine tasting event fostering the tourism of wine in regions whose wine companies invest particularly on high quality and sustainability of their products. The survey was administered to be exhaustive and representative of the Italian population in terms of age and gender. Only respondents over 18 years old have been surveyed. The questionnaire on consumers’ preferences was composed of four parts. The first part contains questions about personal information and socioeconomic characteristics of the respondents. The second part investigates the attitudes of consumers toward the consumption of organic foods, as well as attitudes towards the environments. The latter allowed to elicit consumer’s preferences about organic food products, occasion of purchase and their awareness about organic food product benefits of consumption related to human health and the environment. The third part of the questionnaire focused on wine consumption behaviour and preferences. The fourth and last part contains the Choice Experiment sets sections. The questionnaires were submitted through face-to-face interviews to 300 respondents, but complete questionnaires were collected only in 258 cases.

## EXPECTED RESULTS

Fulfilling the informative gap on the consumers perception of the organic components may foster competitiveness of local producers on competitive global markets. An important step in the interpretation of the results obtained with the estimation of the CM is the determination of path worth, such as the monetary value of the utility that the consumer assigns to a change in the level of one of the attributes typifying the product. Once analyzing the data we expect to obtain indicators on WTP for attributes of local wines with particular regards to organic component, we expect to obtain a quantitative of the monetary value of each component and a hierarchy of values associated with each attribute of the product in order to provide important indications to wine market operators.

**Keywords:** *Consumer preferences, Organic wine, Choice experiments, Random Utility Model, Willingness to Pay Estimation, Conditional Logit Model Estimations*

## A GENERALIZED LOTKA-VOLTERRA MODEL (GLVM) ADEQUACY OF A VOTING PROCESS

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### ABSTRACT

The paper is developed as an application of a generalized Lotka-Volterra model (GLVM) used for the actual voting process analyze and forecasting. Initially started as a comparative basis between Argentinean and Romanian political systems, the research is now developed on Romanian comparative public data from polls and newspapers in order to build the new model parameters. The main goals of this paper are: a) to give an *ansatz* about the meaning of the three parameters' model in an electoral process and correlated them with real data; b) to predict the result for the next Romanian presidential situation before the Fall presidential election.

### ARGUMENT

People and scientists use to say that life is complex; however politics is even more. What looks good in a domain could be rocky path through the wilderness of so called opportunities in another one.

The human cognition process constitutes a process of exchange information among individual to check, correct or not some 'personal observations' in order to reach preliminary conclusions. The dynamic processes link citizens to various mental models including entities and large numbers of practical choices seen as opportunities. To pick it up correctly, one needs to understand the realities as they are not as they look to be.

Mental models include different ingredients and structures as ideology, religion, education level, expectations, and beliefs, internal and external norms, lining up a complex system to lashing interrelated degrees of freedom.

The complexity, as a relevant and elusive property of social systems has to be considered when analyse and adopt different behaviours in response to different situations [1, 2]. Mental models allow us to manage ourselves in ordinary life and being the basis of our own decision-making processes.

The high complexity of human individuals together with the relations among them requires new methods to describe the continuous change of social paradigms that characterizes the contemporary society. Each socio- political system, as a whole, performs day-to-day evaluations that help distinguishing between desirable and non-desirable evolutions of diverse social trends according to particular political, ethical, and ideological attitudes and norms in the model's workings [3].

The fast irruption of the Information and Communications Technologies (ICT) into individuals' life, like socioeconomic uncertainty, labour stress, the digital divide and its consequent inequality, as well as other problems such as regulatory frames, data protection, privacy, security, intellectual copyright [4], augments the complexity of social systems to a degree not seen before in the human history.

The basic fact is that into the Information Society the interaction among individuals, companies, and governments occurs at great speed, not only between them but also among themselves. Therefore new tools are necessary for evaluating and prospecting this complex dynamics in any areas like social, psychological, economical, industrial, legal, ethical as systematic paths to understand that the impact of the ICT in Society is irreversible and unavoidable. Elections times are, as well, among those dynamic elements.

## THE MODEL APPLICATION

The decision making in all stamens requires a careful risk management. The abundance of information, at times contradictory, at times wrong, which the individuals belonging to every subsystem receive, increases the difficulties in the process of transforming information into the knowledge necessary to make a decision-action, leaving always a doubt with respect to its quality, that is to say, as a result of the complex dynamics of the IS, the decision-actions taken will always have a margin of uncertainty.

In this contribution we applied a generalized Lotka-Volterra (L-V) model used some years ago to describe the competition between websites[5] and recently to find hung scenarios and contrarians' dynamics in sociology [6]. Now we evaluate its potential to analyze and forecast modelled capabilities to the actual voting process.

The first problem is to define which data (polls) are represented by the model parameters, as well as if the *ansatz* shown below is or not correct. Our first attempt considered a comparative analyse between Romania and Argentina last presidential elections. At the time, we used public polls and newspapers for Romania to predict the Argentinean future results <sup>1</sup>[9]. This new contribution will bring up to our attention the political horizons of the members of a given political system, in terms of the L-V model.

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<sup>1</sup> It deserves a special paragraph to explain why this two countries. There are several reasons to do so, among which we can enumerate the following: a) both democracies are relatively young (Argentina since 1983, Romania, 1989), b) Argentina is a presidential and Romania a semi presidential representative democratic republics. Meantime the President of Argentina is both head of state and head of government, Romania has President and Prime Minister charges; c) Both have Senate and Chamber of Deputies. In the Argentinean case the Senate President is the Nation Vice President and they are elected as a whole. Instead in Romania President and Prime Minister may come from different parties. Once elected the President remains independent. d) Both electoral systems have ballotage, and e) probably the most important MAS approach to political prospection and alliance analysis 3 there are more than two or three structured parties which gives rise to a game of alliances.

In this sense the different candidates are “agents” of the system, whose chances are measured by polls. No political considerations are taken into account, neither the simulations presented reflects political opinions of the authors. Only public information has been used to check the qualities of the model and make a new prediction for the future fall elections.

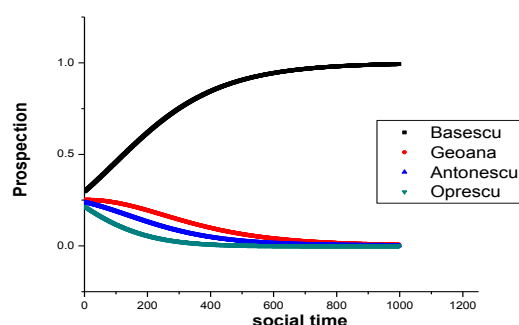
We have started with the 2009 case and the CCSB data regarding the elections which took place on November 26, 2009 and ended on December 6. Now, we know both the final results and the final alliances achieved. Now we can “prospect” chances of different other alliances and compare them with the result. We prospect the horizon of each agent of the Romanian political system, assuming the following considerations: a) positive percentage represents the positive image, and it is represented by the  $\beta$  parameter; b) the remaining percentage is the negative image and is used to determine the initial conditions of each agent, taken them as the inverse of the negative image.

The 2009 initial numerical simulation considered the candidates using data from another CCBS poll (July, 2009), where the public opinion efforts focused on investigation of potential alliances between two parties (PDL and PNL+PSD) and the independent candidate.

**Table I**

Candidate	Positive image	Party
Sorin Oprescu	0.45	Independent
Traian Basescu	0.37	PDL
Crin Antonescu	0.35	PNL
Mircea Geoana	0.32	PSD

Data from Table I is plotted in Figure 1:



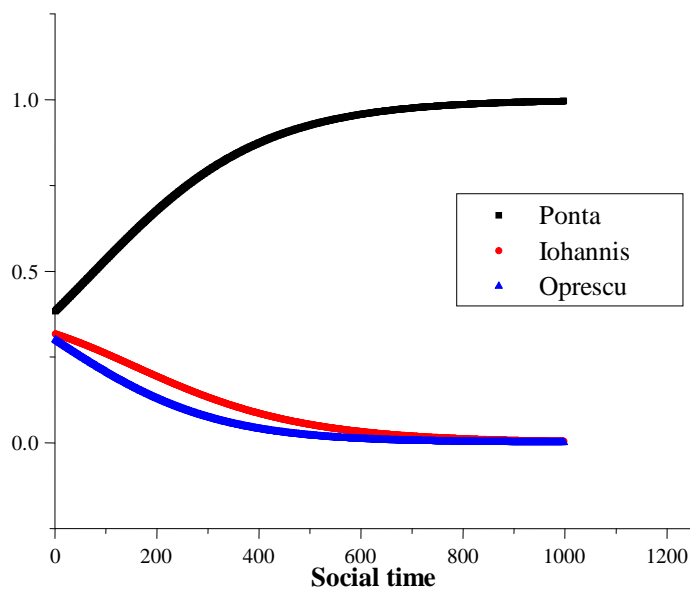
Simulations, as well as initial conditions have been normalized for the sake of simplicity. So:  $f_i(0)$  are: 0.132, 0.170, 0.1760 and  $\beta$ 's are: 0.483, 0.372, 0.349, 0.341, 0.318, 0.270. The  $\gamma_{i,j}$  's are +1 for all the simulations (competitive scenario), unless some alliance is explicated. The  $\alpha'$  is, interpreted here as the growth rate of the candidate  $i$  are equal to +1, in all simulations.

**Tabel II**

Case B	Positive Image	Party
Victor Ponta	0.46	PSD
Klaus Iohannis	0.25	PNL+PDL
Sorin Oprescu	0.16	Independent

The numerical simulation (data from Table II) is plotted in Figure 2.

### Prospection



The research proves that the *ansatz* on model parameters validated the 2009 Romanian results got by using the Romanian polls, and secondly validated them, based on the Argentinean election results. The model used this way may prove the need for other versions of alliances for the new Romanian elections based on the vote intentions and the positive images of potential candidates in less than 100 days before the new elections.

**Keywords:** multi agent simulations, complex behaviour, nonlinear dynamics, political prospection.

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## ORGANIZATIONAL ANTECEDENTS OF MANAGERIAL ORIENTATIONS

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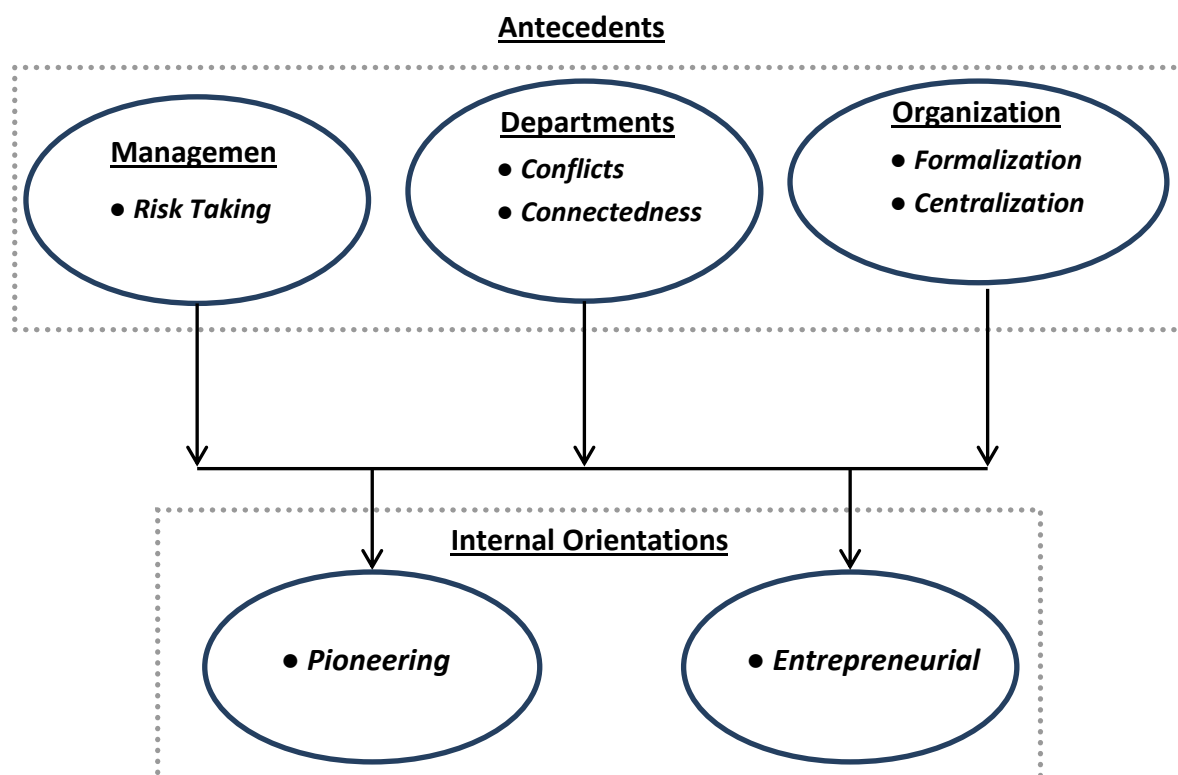
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### ABSTRACT

Strategic orientations have attracted scholars' attention across disciplines. The pros and cons of such orientations have been studied extensively. However, studies have focused mainly on outcomes of such orientations but less so on their antecedents. Against this background, we developed and tested a model of organizational antecedents of pioneering and entrepreneurial orientations.

### THE MODEL



### ANTECEDENTS

As presented in the model above, this research focuses on internal orientations and organizational antecedents since managers control such factors. Based on Jaworski and Kohli (1993), antecedents include three multi-faceted sets of factors: management, departments, and the organization.

## INTERNAL ORIENTATIONS

Prior studies have argued that firms should develop and use multiple orientations (Hakala, 2011) since no single orientation leads to superior performance in all situations (Noble, Sinha and Kumar, 2002). Our research focused on pioneering and entrepreneurial orientations. Although the conceptualizations of these orientations overlap to an extent (e.g., risk taking and innovation), we used distinct operationalization taken from the literature thus minimizing operational overlaps. We claim that pioneering and entrepreneurial orientations represent different world-views and lenses through which firms view and act on the environment.

## RESULTS

Our model aimed to find relationships between an antecedents and internal orientations such pioneering and entrepreneurial orientations.

We conducted two regression models. Each of models examined separately what antecedent impact pioneering and entrepreneurial orientations.

The main findings show that **Risk Taking** was found significant ( $p < 0.05$ ) and effect on both orientations. Additionally, we suggest that adopting a risk taking could improve the success of opportunities and responding to competitive threats in the marketplace which eventually increase firm performance.

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# MANAGERS' VOICES IN CONFLICT SITUATIONS – OPENING DOORS, WAITING FOR THEM TO OPEN OR STAYING BEHIND CLOSED DOORS: GENDER PERSPECTIVE

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## ABSTRACT

### RESEARCH AIMS

The current study aimed to illuminate the **construal of voice** by upper echelon managers: perception of voice as in-role versus extra-role behaviors and discerning its functions in exercising power and exerting influence in organizations. In addition it was designed to elucidate the strategies managers use to meaningfully express their voices, to unravel the mechanisms whereby their voices are suppressed and explore their reactions to such silencing attempts. This paper focuses on the **meaning of voice** and its **manifestations** in **organizational conflict** situations, while embracing **gender perspective**. The current research endeavor constitutes a new departure in voice research by looking at the construal of both voice and silencing as well as focusing on upper echelon managers, previously hardly studied in this domain.

### THEORETICAL BACKGROUND

Effective strategic management at the upper echelons constitutes a vital component of organizational sustainability in the current complex socio-political, economic and cultural environment. The capacity to openly express critical opinions concerning organizational policy and present propositions for changes deems essential in promoting such goals (LePine & Van Dyne, 2001). The latter vital capability constitutes a challenge for managers as it requires them to engage conflicts rooted in both structural and process aspects of organizations.

The complex contemporary reality makes organizations vibrant sites of conflicts within and between stakeholder groups (Bidwell et. al, 2013; Desivilya Syna, 2011; Kolb and Putnam, 1992; Putnam, 2010). Each party attempts to shape organizational practices, using intra-organizational negotiation with the other parties and mobilizing internal as well as external support. Disputes and discords stem from divergent expectations and perceptions of different actors and their tendencies to control organizational processes and outcomes. Consequently, **power** concerns are salient in organizational

settings, sometimes in an explicit form, but more often in a symbolic fashion (Desivilya Syna & Rottman, 2012; Fuller, 2011; Putnam, 2010).

Thus, the main query explored in this paper revolves around manifestations of the need for control of upper echelon managers in conflict situations; namely, how do women and men at the top of organizations maneuver in the course of actual conflict in order to meaningfully express their voice, thereby asserting their organizational positions but at the same time minimizing personal costs.

Voice has been construed as behavior that challenges the status quo with the intent of improving a situation rather than merely criticizing it (LePine & Van Dyne, 1998). It includes such behaviors as speaking up about organizational issues and suggesting changes to strategies, structures and processes (Van Dyne et al., 1995; Van Dyne & LePine, 1998). The prevailing trend in the literature has been to construct voice as employee's **extra-role** behavior; namely, actions not required by formal job definitions. Presumably, the construal of voice in manager's position is quite distinct; constitutes an inherent component of her or his job that is **in-role** behavior. We have examined the latter assumption in the current study.

Due to the complex socio-political and economic reality, which affects today's organizations, upper echelon managers are not always capable of voicing their concerns, expressing critical opinions and suggesting radical policy changes. Thus, investigation of voice suppression mechanisms and strategies used by senior managers to engage such silencing attempts, especially in conflict situations appears vital. Some evidence in this regard comes from research on gender in organizations, suggesting that women are often accorded visibility on the superficial level, albeit implicitly silenced (Simpson & Lewis, 2005). In a similar vein, Clair *et al.* (2012) showed that demographically atypical professionals are often subtly silenced and marginalized. Suppression and silencing of voices, especially at the upper echelons of organizations can have detrimental effects on the quality of strategic decisions and thereby on organizational members and the public in the society at large. Yet, extant research has hardly examined the ways whereby senior managers' expressions of genuine concerns are halted and how do they react to such attempts. The current study attempted to shed some light on the suppression mechanisms and upper echelon managers' strategies to deal with silencing attempts. This study also endeavored to discern the role of gender in construal of voice and silencing, voicing strategies and reactions to silencing while facing organizational conflicts. Previous research on women's voices in management and specifically in conflict situations show that female managers in comparison to male managers often attend organizational discords and engage organizational power issues rather differently (Desivilya Syna and Palgi, in press; Kolb and McGinn, 2011).

In sum, the **central questions** examined in the current study were:

- How do upper echelon managers – women and men - construe voice in conflict situations? Do they view it as intra-role versus extra-role behaviors?
- What kind of strategies female and male managers at upper echelons of organizations employ to voice their concerns in conflict situations?
- How do upper echelon managers perceive the attempts to suppress their voices in conflict situations?

## METHODOLOGY

The study attempted to encourage the study participants to reflect upon their management practice: discern the meaning and role of voice in their management practice, elucidate their strategies of voicing and reactions to silencing. To accomplish this goal a qualitative methodology was employed.

Study Participants. Twenty nine managers (13 women and 16 men) at upper echelon positions in private (e.g., a head of operation division in industry), public (e.g., head physician of a medical department in major public hospital, head of academic administration in an academic institution) and third sector organizations (e.g., a manager of NGO) were recruited to participate in the study. A snow-ball technique was used to invite senior managers to take part in this research, starting with acquaintances and asking them to suggest other prospective participants. To protect the participants' rights and comply with research ethics principles, all the identifying information of the participants was transformed into codes and all the data is kept solely in the research team's records. Upon the completion of data analyses the participants will receive the summary of findings.

The Research Tool. The research tool was **in depth individual interview** conducted face-to-face with each participant. It was designed to elucidate each participant's construal of their respective experiences of voicing (focusing on their choice of strategies), suppression of their voices and their reactions to such attempts. The current paper focuses on a subset of three questions focusing on managers' voice in conflict situations:

- **Situations of disagreement:** *"Situations of disagreement are quite frequent at upper echelons of organizations, could you please describe your experiences in this area."*
- *"Please describe a recent case of a disagreement with somebody at work (your peers or superior). Who was the other person? What have you done? What has the other person done? What were the outcomes?"*
- **Expressed criticism:** *"Please give me an example of a situation when you expressed criticism with regard to something that happens in your organizations (not criticism of your subordinates). To whom have you expressed it? How? What were the reactions?"*

- **Criticism not expressed:** *"Please describe a case where you have been critical with regarding to something in your organization but you have not expressed your criticism. Why?"*

## INITIAL FINDINGS AND CONCLUSIONS

Data analysis entailed content analysis, which was executed in accordance with the principles of qualitative research: ensuring that at least two of the researchers analyzed each interview to accord further validity to the interpretation. The data were analyzed in three main stages: in the first, "open coding", we read each group interview from beginning to end to gain an initial impression of the main emerging themes. Then we conducted a mapping analysis, in which we laterally assembled the data. Finally, we reverted back to each interviews for a focused analysis, aiming to identify the interviewees' construal with regard to the concepts and notions arising from the professional literature (Lincoln & Guba, 1985; Shkedi, 2003; Strauss and Corbin, 1998).

### Initial Findings

#### **The meaning of voice in conflict situations**

The findings strongly suggest that senior managers – both women and men – construe voice and exerting influence as **in-role behavior**; namely, an integral component of their job definition. Thus, their role expectations entail challenging the status quo and express their genuine views concerning organizational issues. This finding lends support to our assumption that the definition of voice in manager's position is distinct in comparison to employees for whom voice constitutes an extra-role behavior. The in-role perception of voice becomes even **more salient in conflict situations** with peers or superiors as they sharpen the divergence between the manager and the opponent and precipitate the need to engage the conflict while asserting one's own position. The conflicts indicated by the study participants have revolved around "stolen" credit for ideas, discordant views with regard to work procedures, organizational policies, human resources in general or specific employees. Most of the conflict issues reveal overt or hidden power struggles between the manager and his or her adversary.

**Gender and construal of voice.** Lack of voicing tends to be **rationalized**, by and large **attributed to external sources**, such as the superior's autocratic management style, organizational culture, and unbearable potential cost for the organization and employees. **Men** seem to exhibit **stronger tendency** for **rationalizing** paucity of voice and assign blame to external factors in comparison to women. For male managers refraining from genuine and open expression of their concerns in conflict situations is antithetical to normatively prescribed behavior. By contrast, female managers appear to be more aware than men of their difficulties in expressing genuine voices, hence more likely to ascribe lack of voicing to internal factors.

### Patterns of voicing: gender perspective

In line with Fuller's contention (2011), both women and men at upper echelons of organizations find it quite difficult to exhibit a nonconformist stance and behavior. Yet, our findings suggest that gender plays a significant role in voicing patterns. Male managers tend to "*open doors*" that is voice their concerns rather forcefully, directly and act swiftly, although following strategic calculations (long term goals, potential personal costs versus gains). Female managers appear to be more reserved, often waiting for "*doors to open*"; namely, act behind the scene building coalitions, collecting data and evidence to support their claims.

The findings also show that voicing attempts reflect **dynamic patterns** which may be inaugurated by active and direct moves, tactically paused and resumed embracing a more cooperative orientation later on. Depending on the nature of the conflict, especially its importance, women and men alike seem to be quite **persistent** in expressing their concerns in conflict situations.

### Perceptions of silencing and managers' reactions

Both men and women report experiences of silencing attempts by their opponents in conflict situations. These acts are perceived as attempts to undermine their power positions and impede their influence in organizations. The managers' reaction appears to be contingent on organizational culture, perceived price of responding with high resolve, availability of support and importance of the conflict issues. Gender seems to matter in this domain: while women attempt to restore their position using mainly cooperative *turns*, otherwise remain "*behind closed doors*" or exit the relationships (or the organization altogether), men tend use "*counter moves*" or "*restorative turns*" (Kolb, 2004).

### Initial Conclusions

Initial findings point to construal of **voice as in-role behavior** by both female as well as male managers, designed to exert influence and sustain organizational senior position. Consequently, lack of voicing tends to be rationalized. **Voicing patterns** are dynamic in nature, reflecting persistence in managers' attempts to express their genuine concerns, while modifying tactics along the way.

**Silencing attempts in conflict situations** are interpreted as *moves*: the adversaries' intention to undercut one's position. The reactions revolve around restoration of managers' influence and position.

**Power and influence figure prominently** in conflict experiences of upper echelon managers. **Gender appears to play a significant role** in the construal of voice, patterns of voicing and in reactions to silencing in conflict situations.

**Keywords:** *organizational conflict, voice, upper echelon managers, gender, power relations, in-role behavior.*



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# **FIRM GROWTH AND LIQUIDITY CONSTRAINTS IN MANUFACTURING AND SERVICE SECTORS: A COMPARATIVE ANALYSIS AT INDIVIDUAL INDUSTRIAL LEVEL**

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## **ABSTRACT**

We use a large firm-level panel data set to analyze the relevance of liquidity constraints on firm growth in Italy. In most European countries mainstream financial institutions are scantily able to provide affordable credit facilities to small firms. Thus, these firms are forced to finance their growth almost exclusively through retained earnings. We estimate a dynamic version of Gibrat-law, incorporating cash flow as a measure of financial constraints, for different size classes of SME and for several industries in manufacturing and service sectors. The findings show that, in general, small manufacturing firms have higher growth-cash flow sensitivities with respect to medium firms without relevant differences between the four Pavitt technological sectors considered. Conversely, our results highlight, for the services, a significant heterogeneity in the impact of liquidity constraints on firm growth. In particular, for small firms that belong to Knowledge Intensive Market Services liquidity constraints appear relatively more severe in comparison with what occurs in the traditional service industries. Validation of Gibrat-law in the services suggest that an important group of industries, with a superior capacity of encouraging firm's competitiveness, need more financial resources to promote their growth and that of the manufacturing sectors with whom they are connected.

In the last decades the debate on the validity of the so called *Gibrat's Law*, or *Law of Proportional Effect* (LPE) and the empirical analysis conducted to ascertain if firm growth rates are uncorrelated with the initial firm size, has led to an increase in the number of studies concerning manufacturing firms, while few studies have focused on investigating if LPE holds for the service industry.

Some contributors pointed out (Audretsch *et al.* 1999 and 2004, Teruel-Carizosa 2010) that the pattern of firm growth in the manufacturing and service industries is different for the presence in the first sector of higher sunk costs. Some empirical analysis (centered on few individual service industries) found that LPE holds for service sectors, but some recent works found evidence of the opposite outcome (Oliveira and Fortunato 2008 and Teruel-Carizosa 2010). Analyzing growth's dynamic in the service sector is crucial, since this industry, in the last decades, has increased its contribution to the GDP, to the process of job creation and more in general to the economic performance of a country. Moreover the use of new technologies is directly or indirectly incorporated in the activities of many service industries; this means that not only many service firms provide information in different forms but also

that the use of information and communication technology (ICT), from firms belonging to this industry, allows the standardization of many service activities making them more similar to mass-production goods. In our work, we consider different kinds of services firms, that differ in the degree of technological intensity, analyzing in particular those firms belonging to knowledge intensive market services, that are significant users of high technology (in terms of ICT capital) and relatively highly skilled workforce, because the role of this kind of services appears crucial to promote the competitiveness of an economy. Indeed firms operating in this sector are particularly able to meet the demands of modern highly competitive business environment. Moreover, these kind of sectors represent the natural by-product of modern knowledge economies within which increasing specialization induces the need for professional agents in the markets for external knowledge (Consoli and Eiche-Hortelano 2010).

To explain the possible deviation from Gibrat's law and following a recent stream of literature (see Oliveira and Fortunato 2006 and 2008) we make use of financing constraint literature. In particular this work is centered on a large sample of Italian small and medium size (SME) firms since this category represents almost the total of Italian firms.

In the last decade, in Italy, the wave of mergers and acquisitions, have reduced the number of banks and created large national and multinational bank holding companies. Thus the increasing functional distance, that separates the decision center of a bank from its operational branches, changed lending behavior and relationship between banks and firms. Moreover, considering that for SME firms the wedge between the cost of internal and external finance may be huge, we want to ascertain how the presence of liquidity constraints impacts on firm growth, verifying if some important differences exist between SME of different size classes and between individual industries of both manufacturing and service sector. To this aim and to draw some policy implications we split our sample considering not only different size classes of SME firms but also some individual industries inside manufacturing and service sector with a different degree of technological adoption.

To our knowledge this work represent the first attempt to study liquidity constraints on firm growth analyzing the differences that prevail inside manufacturing and service sectors depending on technological classification of each industry examined. In particular, in the services, we compare the results obtained looking at the skill composition of the workforce and at the indicators of innovation intensity that characterized some sectors. Moreover the development of firms that produce ICT or knowledge intensive market services, like Scientific R&D Advertising and Market research, Other Professional, Scientific and Technical Activities, appears crucial to sustain the growth of manufacturing firms that need using this kind of services to maintain or improve their competitiveness on international markets. Therefore we focused our attention on a group of services

that are significant users of high technologies and use relatively highly skilled workforce, since the progressive use of technology in production, the international sourcing of manufacturing goods and other social factors, have increased, over the last decade, the relevance of this kind of services to guarantee the competitiveness and the innovative capacity of a country.

Using a very large dataset our findings show that LPE does not hold for all SME firms regardless the fact that they belong to a manufacturing or services industries. Considering the manufacturing industries in particular we can conclude that all small firms (firms with less than 51 employees) tend to be liquidity constrained. Comparing the results obtained for the size class, conventionally defined, of very small firms (less than 20 employees) with those obtained for the more comprehensive size class of small firms, we notice that in four sectors the sensitivity of growth to cash-flows appear higher in very small firms than it is in small firms. These four industries are characterized by a medium-high or high level of technology adoption. However, on restricting the analysis to the subsamples of very small firms, we notice that industries whose growth appears more financially constrained are widely spread in all individual industries examined regardless the level of technology adoption. In most cases, instead, medium firms (51-250 employees) of both manufacturing and services industries do not seem to suffer from liquidity constraints. These findings are consistent with the hypothesis of asymmetric information according to which in the credit market small firms represent for the bank more opaque borrowers and, for this reason, are more likely subjected to credit rationing.

Contrary to the findings of Oliveira and Fortunato (2008) , suggesting that financial structure does not impact on firm growth, our results reveal that, as regards the service industry, only high technological sectors seem not to suffer from the presence of liquidity constraints. The sensitivity of the growth rates to the cash-flow appears, relatively high not particularly for the traditional services, but, above all, for small firms belonging to ICT-services (Computer programming, Consultancy and Related activities) and, more in general, for small firms of Knowledge Intensive Market Services. In the manufacturing liquidity constraints hinder the growth of small firms with different level of technology adoption, instead, in the service sectors small firms with high skilled workforce and with high R&D intensity appear more liquidity constrained than firms belonging to the traditional services. This result show that, an important group of services industries, with a superior capacity of encouraging firm competitiveness, need more financial resources to promote their growth and that of the manufacturing sectors with whom they are connected.

**Keywords:** *firm growth., firm size, liquidity constraints, panel data, Service industries*

## MOTIVES, EXPECTATIONS AND ECONOMIC RESULTS OF MERGERS AND ACQUISITIONS IN THE KIBBUTZ INDUSTRY

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### ABSTRACT

This study examines motives, expectations and economic results of the 21st century revolution in which public and private investors purchased equity in kibbutz industrial companies. The results show that in the period 2000-2011, assets, sales and equity indeed grew more in the kibbutz industrial companies that joined with external partners, than companies that remained fully owned by a kibbutz. However, in terms of efficiency, profitability and deleveraging, the results of the M&A processes were disappointing.

### INTRODUCTION

In this study, we investigated the motives and expectations of mergers and acquisitions (M&A) and examine the economic results of private acquired firms, kibbutz<sup>1</sup> owned industrial firms in the period 2000 – 2011.

The purpose of this study is double:

1. To learn the motives and expectations of the three parties involved in the M&A, the owner - the kibbutz, the board of directors of the industrial company and the investor – the external partner.
2. To examine the impact of M&A on the financial performance of the acquired firm in the post M&A period.

M&A is one of the principal ways to implement growth strategy (Feito-Ruiz and Menendez-Requejo 2010). M&A activity grows constantly. Grant Thornton's 2013 survey found growth of 56% in cross-border M&A in the world during 2008 – 2013, and 28% of the companies planned to grow in the coming year through M&A (Hughes, 2013). The trend of M&A is driven by global competition, macroeconomic constraints, economics of scale, entrance into new markets, opportunities, adoption of modern technologies, synergy, diversification, risk diversification, survival of firms in distress (Feito-

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<sup>1</sup>In Israel there are 275 kibbutzes; in 2011 the kibbutz population was 1.8% of the population of Israel. A kibbutz is a kind of commune. The first kibbutz was established in 1910; most of the kibbutzes have existed for over 50 years, and they are multi-generational communities.

Ruiz and Menendez-Requejo 2010), market timing, agency motives and hubris, response to industry and economic shocks (Hien, Kenneth and Qian, 2012).

Most empirical studies have investigated M&A of publicly traded companies. Only a few studies have investigated the economic performance of private firms undergoing M&A (Feito-Ruiz and Menendez-Requejo 2010; Richards T. and Manfedo M. 2003). The few studies that investigated M&A of private firms analyzed a case (Steen A. and Welch L. S. 2006) or were based on financial reports received from State authorities (Ravenscraft D. and Scherer M. F. 1989) or from the National Bank (Shim J. and Okamuro H. 2011).

In parts of Europe, Asia and Latin America, many more businesses are private and family-owned rather than publicly owned; family firms play a significant role in the domestic and global economy (Drik 1990). Private firms, family firms and cooperatives act in similar environmental conditions as other firms, and use the same strategy of M&A for survival and growth (Richards T. and Manfedo M., 2000; Feito-Ruiz and Menendez-Requejo, 2010). Despite the important role of private firms in the economy and the fact that private firms also use the M&A strategy, most studies investigated public companies. The main reason for understating of the impact of M&A on financial performance of private firms is the lack of data on private firms after M&A, which often no longer exist as distinct companies, or become entities of the acquiring firm (Tuch and O'sullivan, 2007).

The uniqueness of this research is the investigation of the economic performance of private industrial firms both pre- and post- M&A. The analysis of the economic performances are based on annual accounting reports. The existence of a unique database of multi-years of annual accounting reports of all the kibbutzes and their industrial companies in the kibbutz movement has made possible the current study. This study included only kibbutz industrial companies; private firms have not been included in the research group or the control group, since private firms do not allow publication of their economic performance data.

The kibbutz industry sector is about 10% from the Israeli industrial sector (sales and employees)<sup>1</sup>. In the mid-1990s, there were 393 industrial companies in the kibbutzes, most of which were owned by the kibbutz only<sup>2</sup>; at the end of 2005 only 72% of the industrial companies was owned by the kibbutz only, and at the end of 2011, it decreased to 48%.

Over time, the kibbutz industrial companies have integrated into the global economy and thus have become increasingly similar to other industrial companies.

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<sup>1</sup> Sours: the Annual Review - Kibbutz Industries Association (KIA) 2011.

<sup>2</sup> Source: the Annual Review - Kibbutz Industries Association (KIA) 1994.

## METHODS

Empirical studies that investigated the impact of M&A on economic performance of firms did so using two methods (Tariq H. I., Abdulati A. A. and Radwa M. A. 2011):

1. **Evaluation of the excess return of the shares** of the acquirer and the acquired because of the declaration of the M&A. The studies that used this method usually found excess return to the acquired firm and underperformance to the acquirer (Andrade G., Mitchell M. and Stafford E. 2001; Dickerson A. P., Gibson H.D. and Tsakalotos E. 1997; D. Ravenscraft, and M. F. Scherer 1987; Shinha N., Kaushik K. P. and Chaudhary T. 2010)

2. **Accounting reports-analysis:** The disadvantages of this method are the availability and accessibility of data of this kind. Studies that have used this method found no significant improvement in the performance of the firm after the M&A (Tuch C., and O'sullivan N. 2007).

In the current study, we use annual financial accounting reports; performance was assessed using two methods:

- A. A comparison of the change in economic performance between the research group of firms with external partners to that of the control group, which consisted of firms without partners,- in the timeframe of two years prior to and two years following the year of joining with the external partner.
- B. Comparison of economic performance indices over a period, between the group of firms with partners and the group of firms without partners. The comparison has been made for two periods:
  - 1. 2001-2009 included 11 firms with partners throughout the whole period.
  - 2. 2005-2009 included 24 firms with partners throughout the whole period.

The motives and expectations were investigated by the analysis of 75 cases out of the 100 M&A in the first decade of the 2000s. In each case the managers of the kibbutz or/and the industrial company who lead the M&A process were interviewed. The data was collected by using a quantitative questionnaire.

## MAIN FINDINGS

**Motives and expectations:** each of the three parties involved in the merger-acquisition has different goals; the goals of the kibbutz and the owner of the company, were different from those of the governing board of the company. The goal of the board was more similar to those of the investor-partner than to those of the kibbutz - the owner. The most important goals of the kibbutz in diluted holdings were risk diversification and raising of capital to finance the business growth and ensure business continuity. The most important goals of the board of directors was to increase sales and

profitability, and finance the growth of the business. The most important goals of the investor-partner were to increase revenue and profit. The shared goals of the three parties involved in the M&A transaction was business growth and increase of profitability. The economic findings suggest that sales and assets have grown in industrial companies with partners more than in industrial companies without partners, whereas the efficiency indices increase more in the companies without partners than in those with partners. These findings support the kibbutz leader's assessment that the goal of growth of business has been achieved and the goal of increased profitability and management improvement has been achieved only partly.

**Keywords:** *mergers and acquisitions, economic performance, financial performance, kibbutz industrial companies/firms, join an external partner.*

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## **PUTTING CARROLL'S MODEL INTO TEST: THE CASE OF LEBANON AND TUNISIA**

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### **ABSTRACT**

The literature on Corporate Social Responsibility (CSR) is rich with pioneering conceptualizations that attempt to capture CSR's meanings, drivers, domains, effects and environment criteria. However, one of the most highly cited work and progressive CSR thinking during 1970s remains Carroll's landmark work. Carroll (1979) presented an interesting taxonomy which reconciles CSR types in a four-facet model that includes the economic, legal, ethical and discretionary domains of social responsibility. The domain of economic responsibility is the foundation for all other domains with the legal responsibility being an affirmative action and the ethical responsibility being a reaction action and finally the discretionary responsibility being a proactive action which placed on the apex. Carroll's four domains are aggregative and businesses are expected to fulfil them simultaneously. In this sense, their business decisions are expected to have economic, legal, ethical and discretionary basis to achieve a balanced orientation towards different stakeholders. This is the essence of Carroll's model, which was revealed during a critical period of time when the CSR field of literature was still in its infant and early inception stage in the 1970s. It could be argued too that this model was among the first, if not the first; models which was tested and qualified within a set of collected data. Carroll's model was timely and one of the earliest theoretical propositions within the literature.

Early CSR academics as well as practitioners needed this model to gain legitimacy and credibility for their CSR case and argument. For instance, drawing on Carroll's model many scholars came after and made their contributions. Wood (1991) in her model on social performance (CSP) extended Carroll's model and emphasized the importance of social responsiveness process. The stakeholder theory perspective brought by Freeman (1984) completed the picture by stressing the importance of maintaining a balanced relationship with different stakeholders and responding to their needs. Carroll himself provided in 1991 a stakeholder/responsibility matrix which links economic, legal, ethical and philanthropic responsibilities to stakeholder groups, e.g. employees, customers, community. Again, Wood and Jones (1995) suggested using a stakeholder framework to assess outcomes of CSP whether they meet stakeholders' needs or not. We can see

here how Carroll's model became a focal point and important reference for many later important conceptualizations with the CSR literature.

This model was set and mainly used in the particular context of Western countries (Garriga and Melé (2004), Waddock et al. (2002)). However, little research focused on using this model in less developed countries (Jamali and Mirshak (2007), Golli and Yahiaoui (2009), Ibrahim et al. (2012), Jamali and El Dirani (2013)) and check its applicability and ability to explain CSR dynamics. Rather than taking the model as for granted and irrespective of the context where it's being studied, our papers attempts to explore the validity of Carroll's model in the particular context of Lebanon and Tunisia. Findings from both countries could generate enriching and insightful knowledge about CSR in the absence of in-depth and institutional research efforts in both countries as compared to theoretical and managerial CSR advancement in other contexts as for example in UK, Australia and the USA.

For this purpose, we made a qualitative study within 18 case studies that were selected based on their level of CSR activity. An in-depth interview was conducted with managers responsible for CSR (15 in Lebanon and 17 in Tunisia). The interviews lasted between one and two hours. Our interview questions were designed to cover CSR understanding, CSR domains and activities and whether or not Carroll's taxonomy is practical and sufficient in meeting and fitting CSR knowledge and practices in Lebanon and Tunisia. Although we prepared an interview guide prior to interviews, however semi-structured interviews helped us to be more flexible in the sequence of questions in light of the progress of the interviews. Secondary data were also collected from CSR reports and web materials. The interviews were transcribed and with the documents mentioned they were analyzed using coding method whereby codes were initiated and grouped as they were identified from the data and the conceptual categories. For internal validity, within case-analysis and cross-case analysis were conducted by identifying the similarities between the cases (Yin, 2009).

Our investigation made it possible for us to recommend some developments to be introduced to Carroll's model to make it more flexible and holistic or benefiting from some models presented within the literature on strategic CSR among different factors to take into account in international context. We recommend in this perspective Porter and Kramer's 2006 and Waddock and Graves's 1997 models that appear to be more flexible and practical to follow CSR as it develops from a pure philanthropic and unsystematic approach to a more strategic CSR approach in Lebanon and Tunisia, away from CSR taxonomies.

**Keywords:** *Corporate social responsibility (CSR), Carroll model, CSR domains, CSR understanding, CSR practices, philanthropic CSR, Lebanon, Tunisia*

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## **THE (R)EVOLUTION OF WINE MARKETING MIX – FROM THE 4PS TO THE 4ES**

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### **ABSTRACT**

Wine has emerged in latest decades as one of the most interesting market throughout the world, both for Old World countries (Italy, France, Spain, and others based in Europe) and for New World countries (US, Chile, Argentina, South Africa, Australia and New Zealand, only to mention the most important ones). It is a common opinion that Old World countries are still focused on wine production, while New World countries are more focused on wine marketing (Resnick, 2008).

The 4Ps (product, price, promotion, and place) are the traditional framework by which marketing academicians, managers and professional implement the operating stage of the marketing management process (McCarthy, 1960). This framework is very powerful because it can be used in every sector or market, in which, however, the 4 Ps need to be contextualized (see for example the 4cs of Lauterborn, 1990, now mostly used in service marketing).

Starting from the model of the 4Ps, in this article the authors will develop a theoretical framework for a contextualized version of wine marketing mix, that can be based on the 4Es (expertise, evaluation, education, and experience) as a 'global' marketing technique. In the case of wine, in fact, the utility of the product needs to be explained and understood (product – expertise), and appreciated not only in terms of money, but in a more general judgment (price – evaluation); furthermore, the perception of the product shall be combined to the occasion of present/future consumption (communication – education), that enriches the overall situation of purchase (distribution – experience).

The study is oriented to develop a theoretical framework about wine marketing mix that constitutes an original concept of the authors, able to be applied and recognized in every wine market, domestic or international. Bases of the research are a huge literature review about marketing mix in general and wine marketing in particular, together with an adequate set of in-depth interviews with wine entrepreneurs, managers, sommeliers, operators, and wine lovers, so to justify the exploratory nature of this research (further studies are forthcoming to verify the statistical validity of the model).

## **CROSS-BORDER FUNDING AND MICROFINANCE MISSION DRIFT: EVIDENCE FROM SUB SAHARAN AFRICA**

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### **ABSTRACT**

### **INTRODUCTION**

CGAP Cross-border funder survey (2012) shows that despite the financial crisis, cross-border commitments to microfinance institutions (MFIs) in Sub Saharan Africa (SSA) increased by 12 percent per year on average between 2009 and 2011 to reach close US \$ 2.7 billion. This funding could be seen as an additional source of capital for MFIs (Swanson, 2008). However, these funds are provided by public and private investors with each having different motives. Most public funders use microfinance as a tool to achieve development goals such as poverty reduction and financial inclusion (El-Zoghbi et al., 2011, p.1). On the contrary, for some private investors, microfinance is a new emerging asset where high profit could be maximized (Dieckmann 2007). For other private investors microfinance presents an opportunity to diversify their investment portfolios, while also achieving social and environment objectives-socially responsible investors (El-Zoghbi et al., 2011, p.1). This article provides an evaluation of whether these different foreign sources of capital affect the dual mission of MFIs.

Recent studies Martins and Winkler, 2013; Mersland and Urgeghe, 2013; Mersland et al., 2011 have identified different dimensions of foreign involvement on microfinance mission drift. However, the literature has been silent on cross-border commitments, which consists of public and private funding. Furthermore, the study uses data from SSA which is the poorest region (World Bank, World Development Indicators 2013) and the region with lowest banked households CGAP and World Bank, 2010, p.4).

### **THEORY AND HYPOTHESIS**

The research builds its arguments on two theories; capital structure and agency costs. Firstly, the capital structure theory assumes that in a perfect capital market, homogenous expectations, absence of taxes, and no transaction costs, the value of a firm is unaffected by the way it is financed (Modigliani and Miller 1958). However, empirical researches (Boateng, 2004; Miller and Modigliani, 1966) show that in the real world, capital structure decisions do affect firm value and performance. In the same

vein, it could be argued the capital structure (debt, equity, grants and guarantee) employed by an MFI could either promote or prevent the MFI from drifting from its mission.

Secondly, the agency cost theory presumes that the separation of ownership (shareholders) and management (agents) can affect capital structure choice and firm value (Jensen and Meckling 1976). The decision to use large amounts of foreign funding may generate agency problem between maximizing profits and maximizing outreach. This means that MFIs receiving foreign funding (debt, equity, donations, guarantees) may be forced to respond to funders pressures to operate more efficiently and may therefore choose to serve less poor clients with lower delivery costs, implying mission drift. Based on the above discussion, the research includes cross-border funding as represented by cross-border commitments in the model based on the following main hypotheses:

*Hypothesis 1a: Cross-border funding is positively related to financial performance*

*1b: Cross-border funding is negatively related to social performance*

## RESULTS

By using the ordinary least squares dummy approach which controls for unobservable factors (such as regulatory environment, macroeconomic and political stability) the findings show that cross-border funding positively affects average loan size, thereby rejecting the hypothesis that mission drift occurs. The findings also indicate that cross-border funding positively affects financial performance in terms of operational self sufficiency. However, all these significance relationships disappear, once country dummies are accounted for. Due to the fact cross-border commitments is concentrated in two sub regions-West and East Africa, sensitivity analyses were performed to see if the above results might change. The results show that cross-border commitments positively affect return on assets (ROA) only in MFIs in West Africa, while it is insignificant in the other sub regions.

## DISCUSSION

Using a dataset of 212 MFIs from 30 SSA countries accessed over a three-year (2007, 2009, and 2011) period. The study finds that cross-border funding does not influence either the social or financial performance of MFIs, once time and country effects are controlled for. This could mean that the relationship between cross-border funding and mission drift is not robust. Based on this result, there is no evidence of the occurrence of mission drift. The above findings are broadly in line with the recent findings by Winkler and Martins (2013) in Latin America.

The main limitation of the research is that cross-border commitments data is provided only at the country level and not at the MFI level. Moreover, data for some years are missing (2008 and 2010), since surveys are carried out biennially.

**Keywords:** *public funders, private funders, cross-border funding, commitments, mission drift, social performance, financial performance, welfarist, institutionist, Sub Saharan Africa.*

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## INTEGRATION OF INCLUSIVE CULTURE TO DRIVE INNOVATION AND PERFORMANCE IN UNSTABLE ENVIRONMENT

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### ABSTRACT

Due to globalization of markets and diversification of the work force, managers in any organizations have to face frequently cross-cultural interactions for negotiation purposes or business practices or even within individual interactions.

Any business or organization is responsible for increasing the rate at which technological advances are used within the manufacturing of a product or the delivery of the service they offer, in order to increase their output. Most organizations have faced massive changes and transformations for the purpose of innovation.

To enhance the interactional aspect of the innovation process, the concern is to create a comprehensive internal organizational culture, the progression of personnel competences and organization abilities simultaneously, which is the effective approach to achieve an improved organizational productivity and attain competitive advantage.

Diversity being a key component of accomplishing an innovation culture, it Could be a implicit factor proceeding against organizational efforts to raise and strengthen the culture and the processes that support innovation.

The integrated process should be influencing the development of individuals, languages, concepts, skills and behaviors that promote insertion. In a theoretical approach, we are trying to give a perspective of the positive and negative impacts of the culture, which may affect the integration of an innovation process in a multicultural work environment. The objective is to prevent any major conflict or drawback due to cultural perspectives that may restrain the productivity of the organization. The research addresses the problems that faces configuration of insertion concepts and tools in a projected innovation process, focusing on the concept of teams in a work environment within an Egyptian organization at the core of an unstable political situation.

**Keywords:** *Culture, international management, implications to business practices, intercultural interactions, integration, innovation, technology, productivity, cross-cultural, unstable economy, adaptations methods, management challenges.*



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## FUNDING INNOVATIVE SMES OF TRADITIONAL SECTORS

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### ABSTRACT

The growing interest in innovative SMEs stems from the fact that they are perceived as a main engine of economic growth and job creation. Still, these companies face obstacles in the form of inaccessibility to funding, especially those companies which are based on knowledge and innovation and whose assets are primarily intangible in nature.

This study points to the funding difficulties of innovative SMEs that operate in traditional sectors ("ITSME") and asks whether current conditions point to the existence of a market failure.

The study explores the financial tools available in Israel and their relevancy to ITSMEs by conducting in-depth interviews with different financial actors who provide financial services. These include venture capital funds, banks, private equity, mezzanine funds and key players from the public sector.

In our study we identify the existence of a market failure relating to the funding of ITSMEs and suggest that the venture capital, private equity, and mezzanine funds models cannot provide adequate funding solutions for ITSMEs in Israel.

In light of the importance of these firms to the economy, governmental intervention is required, if more innovative activity of ITSMEs is desired. To this end, the study suggests a novel funding scheme that ties private equity funds to ITSMEs.

The study contributes to the literature by identifying groups of highly innovative firms operating within traditional sectors and by using a qualitative approach to analyze the relevancy of different financial mechanisms to their needs.

**Keywords:** *SME, innovative SMEs in traditional markets, lack of access to finance, market failure, banks, venture capital funds, private equity funds, mezzanine financing, government involvement in SME funding.*

## DEVELOPING AND TESTING A WORK DESIGN TAXONOMY OF KNOWLEDGE WORKERS' JOBS

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### ABSTRACT

Organizations are facing increasing workplace diversity and continuously struggle to manage business complexity. Thus, managers and HRM experts are required to design jobs for different employee groups and occupations within today's hypercompetitive environment. They shape the content, function and relational aspects of jobs by changing a number of design parameters or work characteristics (e.g., Campion, 1988; Cordery and Parker, 2007). As a result, jobs often vary among employees in degree of task overlap, number and nature of tasks performed, as well as in level of interaction and interdependence.

Work design interventions are not a new topic (e.g., Lawler III *et al.*, 1973; Hackman and Oldham, 1980; Parker and Wall, 1998; Holman *et al.*, 2010). The research domain is broad and still evolving, as a wider range of work characteristics has been recently examined (e.g., Parker *et al.*, 2001; Morgeson and Humphrey, 2006; Grant, 2007; Humphrey *et al.*, 2007; Dierdorff and Morgeson, 2013). Nevertheless, past studies were dominantly focused on "individual", one-dimensional job/work characteristics of non-knowledge workers. However, scholars realized that certain patterns of working practices in general (e.g., MacDuffie, 1995; Ketchen Jr and Shook, 1996) and job/work design bundles specifically (e.g., Fleishman and Quaintance, 1984; Meyer *et al.*, 1993; Morgeson and Humphrey, 2008) capture the complexity of organizational life. Additionally, individuals seem to observe their jobs as patterns of several work characteristics (Stone and Gueutal, 1985). Therefore, a configurational or systems approach to work design should be applied (e.g., Johns, 2010; Munyon *et al.*, 2010). A multidimensionality of work characteristics need be emphasized and studied more systematically (e.g., Parker and Ohly, 2008; Grant *et al.*, 2010).

Although a significant number of work-related or work design configurations have already been identified in the literature (e.g., Drazin and Van de Ven, 1985; Naughton and Outcalt, 1988; Campion *et al.*, 2005; Zoghi *et al.*, 2005; Burton *et al.*, 2006; Cordery and Parker, 2007; Valeyre *et al.*, 2009; Holman and McClelland, 2011; Morgeson and Garza, 2013), the majority of those classifications are typologies of various job quality and work organization issues, and they do not represent "pure" work design configurations. In addition, we still lack empirical insights about work design of knowledge workers – an increasingly important and voluminous group of employees (e.g., Drucker, 1959; Davenport, 2005; Levenson, 2012). Therefore, the main purpose of the present research is to examine the bundling

nature of work characteristics and to develop the work design taxonomy of knowledge workers' jobs. In addition, distinct work design clusters are evaluated for performance in order to determine (in)appropriate working practices.

The exploratory work design study was conducted on the sample of 512 employees from 48 large-sized Croatian organizations. A cross-sectional and cross-occupational research design was applied in order to include knowledge workers – managers and professionals – from a variety of different jobs, occupations and industries. The data were collected by using the adapted *Work Design Questionnaire* (see Morgeson and Humphrey, 2006), a comprehensive instrument and a general measure of work design consisted of 65 items on a 5-point Likert-type scale measuring 12 work design variables and 2 outcome variables. The survey questionnaire was focused on gathering perceived task, knowledge and social characteristics of knowledge workers' jobs and subjective measures of their both task and contextual performance.

A four-step analytical approach was taken. Firstly, the R-mode analysis was conducted. A factor analysis with varimax rotation was followed by a Ward's hierarchical cluster analysis to reduce the number of job-descriptive elements and identify the desired job-analysis dimensions (see Harvey, 1986). Secondly, non-hierarchical *k-means* clustering method was applied to establish the work design taxonomy. The analysis verified the existence of three-cluster solution that was further described, compared and validated through non-parametric tests for the equality of means. Lastly, determined work design (WD) clusters were analysed separately for managers and professionals, and work performance outcomes of each occupational group were determined and examined.

Work characteristics across WD clusters differ significantly thus validating the proposed taxonomy. The high-enriched jobs were reported within the first WD cluster (N=212; mean range from 3.70 to 4.71) consisted of 57.55% of managers and 35.39% of professionals. On the other hand, low-enriched jobs were present within the third WD cluster (N=72; mean range from 2.53 to 3.51), dominantly occupied by professionals. However, most professionals (46.38%) were classified within the second WD cluster (N=228; mean range from 3.15 to 4.15) and were assigned to handle medium-enriched jobs. Managers in high- and medium-enriched jobs provided the same level of work performance as their professional counterparts. Yet, managers occupying low-enriched jobs were significantly less successful regarding both task and contextual performance outcomes than professionals within the same jobs were.

The present study investigated and confirmed that conventional occupational groups of knowledge workers (managers and professionals) potentially vary within and between each other in the extent and nature of work characteristics. By using a larger number of work characteristics, the work design taxonomy was developed and three WD clusters for knowledge workers were proposed. Both

managers and professionals were significantly represented within high-enriched and medium-enriched clusters, which emphasize the similarity of their jobs. As their jobs and performance do not differ significantly, managerial and professional career tracks can be easily switched thereby improving organizational flexibility and responsiveness. However, this is not valid for low-enriched jobs, as managers are not challenged enough to provide a considerable work effort. In such work environment, managerial jobs should be enriched. Ultimately, the examined relationship between work design configurations and performance outcomes of occupational groups provided useful insights for making work design decisions within the knowledge economy.

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## **TOURISM DEVELOPMENT IN ANGKOR WAT IN CAMBODIA: A WAY TOWARDS SUSTAINABLE SOCIAL AND ECONOMIC DEVELOPMENT IN AN UNDERDEVELOPED COUNTRY?**

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### **ABSTRACT**

To promote economic growth in less developed economies, standard economic approaches focus mostly on export driven development strategies and are encouraged by trade agreements. As it was shown already by Singer-Prebisch (see Oatley 2010), less developed economies focusing on export based strategies are exporting mostly agricultural goods, which suffer from low income elasticity and cannot achieve sustainable economic development. Furthermore weaknesses of standard economic approaches are visible when looking not only at the experiences of e.g. many Latin American economies, but also at the New Member States of the European Union, which are transition economies. Despite of economic models stating that input factors converge (see e.g. H-O-S models), these developments cannot even be observed in economies of the European Union, which are already regarded as higher developed.

Consequently alternative economic models aim to integrate factors, which are neglected in standard economic approaches (Weissenbacher 2008; Jäger/Springler 2012): space, time and the specific structural and institutional settings of regions and nations.

Models, which focus on structural and institutional settings, are closely related to approaches of Structuralism and Keynesian approaches. These models show the importance of protective measures of national authorities and are critical towards free trade policies. Additional models dealing with the importance of space are closely related to economic geographic approaches. In this respect especially Myrdal's (1973) discourse, which distinguishes regional backwash and spread effects, sheds light on the dual effects of sector promotion on regional development – including socio-economic effects.

Applying these alternative approaches, the proposed paper aims to critically reflect on the effects of the promotion of the tourism sector in Cambodia. Does the increase of tourism – especially in the region Siem Reap – foster sustainable growth in Cambodia?

The temples of Angkor Wat, which are located in Siem Reap, are among the top tourism destinations in Cambodia. Visitation figures show two-digit annual growth rates, and are now at approximately 2 million visitors per year. Besides the textile industry, tourism is the most important industry in this underdeveloped country.

Tourism development is promoted as a way towards development for the region, and tourism has indeed been creating jobs in Siem Reap. Based on these positive trends the question arises whether the local population is benefitting from tourism development – is Siem Reap experiencing sustainable social development through tourism? This question is investigated with the help of the following indicators: 1. Standard of living, which includes the type of housing, access to clean water and sewage systems of the population. 2. The economic standing of the population, measured by housing prices, food prices and income levels. And 3. Potential for development: indicators related to education, like school enrollment and education levels. The paper furthermore analyses the structure of ownership of tourism related enterprises in Siem Reap (locally or foreign owned). The methods applied are analysis of statistical data as well as interviews with NGOs and tourism associations in Siem Reap.

**Keywords:** *alternative economic models, tourism, sustainable development, Cambodia, Siem Reap, Angkor Wat.*



## **UNDERSTANDING CELEBRITY TRUST CONSTRUCT, ITS DIMENSIONS AND ITS IMPACT ON OTHER BRAND RELATED CONSTRUCTS**

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### **ABSTRACT**

Trust plays a major role in generating relationships between consumers and brands. Because of trust, consumers' belief that the brand has qualities that make it unique, competent, consistent, and honest. In the last few years, several researchers have explored trust within the context of brand management (Delgado, et al. 2006; Soh et al., 2009). However, thorough analysis of literature reveals that there are still wider gaps, which need to be explored further. Recent trends, based on the decrease of level of trust in the context of brand management, also give emphasis to explore trust in more details (Lantieri et al., 2007). One of the areas within brand management context, where trust can be explored further is of celebrity endorsement.

A similar construct to trust i.e. trustworthiness, although, has been an area of interest for many researchers, but previous literature reveals that both trust and trustworthiness are two different contexts, both with different meanings and conceptual characteristics (Morgan and Hunt, 1994; Mayer et al., 1995; Delgado et al., 2006; Soh et al., 2009). Trust is defined as a willingness of a party to be vulnerable to the actions of another party based on the expectation that the other will perform a particular action important to the person or trustor (Mayer et al., 1995; Morgan and Hunt, 1994). This definition of trust suggests that people do not only belief on the source (or celebrity), but also show their confidence and willingness to use that knowledge (appeared from the celebrity) as the basis of their actions (Morrow et al., 2004, Soh et al., 2009). Trustworthiness, on the other hand, refers to the honesty, dependability and trustworthy of the source (Erdogan, 2010). These definitions explain that trust is based on all the three cognitive, emotional and behavioral dimensions (Lewis and Weigert, 1985; McAllister, 1995). Trust is cognition based in that we choose whom we trust, in which respect and under what circumstances, and we base the choice on what we take to be good reasons, constituting evidence of trustworthiness (McAllister, 1995). Trust is also affective based. Affective based trust is generated on the basis of feelings generated by the level of care and concern, the partner demonstrates (Marrow et al., 2004; Johnson et al., 2005). There is a third component of trust, behavioural dimension of trust, which is constituted by the actions that flow from both cognitive and affective trust, and can be described as consequence of, both, cognitive and affective trusts (Johnson and Grayson, 2005). Trustworthiness, on the other hand, is only based on the cognitive dimension of

trust and fails to cover the real meanings (infact, trust in all other contexts like psychology, sociology, social psychology and in business studies is studied based on both two dimensions).

Researchers have, further, argued that trust between two parties is not only build on cognitive trust or on partner's reputation, but is also build on the basis of affective trust or feelings, generated by the level of care and concern (or benevolence), which the opposite partner shows. These feelings give rise to the perceived strength of the relationship between partners and are truly important in the context of 'business to consumer' marketing, where contractual agreements (compare to other contexts, like, business to business and interorganizational context) are less, and main source of trust is based on the good-will or benevolence, generated by the informant or celebrity (Johnson-George and Swap, 1982; Johnson and Grayson, 2005).

These gaps and confusions give rise to conduct a research and explore trust, further, within the context of celebrity endorsement. Therefore, an exploratory research would be conducted and a celebrity-trust scale would be formed. This scale would, then, be used to examine the influence of celebrity-trust and its both two dimensions on advertising credibility, brand credibility, brand equity and, on performance and reputation of the firm. Findings from this study would help researchers and practitioners to clearly understand meanings of trust within celebrity endorsement context.

## RESEARCH QUESTIONS

The research questions are:

- What is trust in the context of celebrity endorsement? Is it based on both cognitive and affective dimensions? What are the components in each dimension?
- Whether the developed measurement of trust in celebrity endorsement significantly and sufficiently correlated with other constructs (i.e. advertising credibility, brand credibility, brand equity and, on performance and reputation of the firm)

## OBJECTIVES

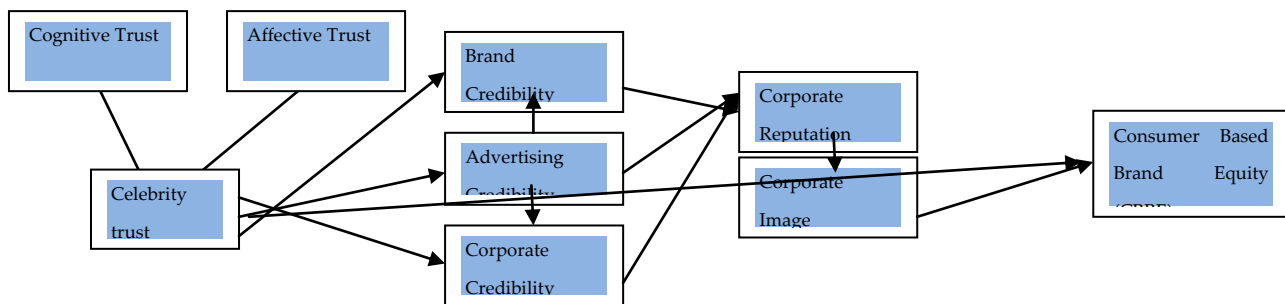
The main objectives are:

- To explore the meaning of trust within the celebrity endorsement context,
- To create a valid and reliable celebrity endorsement trust scale,

- To use the celebrity-trust scale and its dimensions to examine the impact of celebrity trust on advertising credibility, brand credibility, brand equity and on performance and reputation of the firm (and some other related variables)

## CONCEPTUAL FRAMEWORK (AND RESEARCH HYPOTHESES)

Based on above mentioned research questions and objectives, given conceptual framework and hypotheses are given.



(Figure.1. Conceptual Framework)

- Hypothesis.1: Cognitive trust has an effect on Affective trust
- Hypothesis.2: Celebrity trust is based on Cognitive trust, and not on Affective trust
- Hypothesis.3: Celebrity Cognitive trust has a higher effect on Advertising Credibility compare to Affective trust
- Hypothesis.4: Celebrity Cognitive trust has a higher effect on Brand Credibility compare to Affective trust
- Hypothesis.5: Celebrity Cognitive trust has a higher effect on Corporate Credibility compare to Affective trust
- Hypothesis.6: Advertising Credibility has a positive effect on Brand Credibility
- Hypothesis.7: Advertising Credibility has a positive effect on Corporate Credibility
- Hypothesis.8: Brand Credibility has a positive effect on Corporate Reputation
- Hypothesis.9: Advertising Credibility has a positive effect on Corporate Reputation

- Hypothesis. 10: Corporate Credibility has a positive effect on Corporate Reputation
- Hypothesis.11: Corporate Reputation has a positive effect on Corporate Image
- Hypothesis.12: Corporate Image has a positive effect on Consumer Based Brand Equity (CBBE)
- Hypothesis.13: Celebrity cognitive trust has higher effect on CBBE compare to Celebrity Affective trust

## METHODOLOGY

To develop a celebrity-endorsement scale, a multi-stage research design would be employed. The design would be modelled after Churchill (1979), and would include his recommended eight steps for developing valid measures of marketing constructs.

These eight steps are:

- Specify domain of a construct,
- Generate a sample of items from literature reviews, surveys and insight,
- Collect initial data,
- Purify the measure by assessing reliability and dimensionality,
- Collect new data,
- Reassess reliability,
- Assess construct validity and
- Develop norms.

These steps are divided into three stages: (1) the identification stage, (2) the reliability stage and (3) the validation stage. In the first stage, the domain of the construct would be specified through the review of literature, based on trust (Step 1). Next, with the help of prior literature, meanings of trust from dictionary and interviews with the consumers, initial pool of items would be generated (Step 2). To confirm the content validity of items (generated from prior literature, meanings from dictionary and

interviews), marketing academics and practitioners would be involved in the process to develop and identify items for the reliability stage.

In the reliability stage, a survey would be conducted (Step 3). The data from survey would be split in two halves. The first half of the data would be analyzed by using exploratory factor analysis (Step 4). Exploratory factor analysis would be used to explore structures of the construct and to spot appropriate items for the construct measurement. The second half (Step 5) of the data set would be analyzed by using confirmatory factor analysis to validate the structure of the measurement items proposed in the first data set (Step 6).

In the validation stage, a new data set would be collected by the survey of a complete different population (Step 7). The data would be analyzed by using confirmatory factor analysis to reassess the reliability of the scale. Concurrent validity of the scale would then be examined by testing if the scale would be able to distinguish between the groups who point out different levels of trust. Construct validity would further be taken based on Convergent, Discriminant and Nomological validity. These tests would be taken to confirm that constructs, which are either related or not related or related positively in the theoretically predicted way, are in reality true.

## DATA COLLECTION

Based on the formation of trust scale and testing the hypothesis, both Qualitative research method (first two steps of creation of scale) and Quantitative research method (rest of the steps in the creation of the scale) would be used. Most part of the research, however, would be based on Quantitative research method, apart from first two steps of scale formation, where Qualitative research method would be employed. For Qualitative method, interviews with marketing academics, practitioners and consumers would be taken, whereas, for Quantitative method, surveys would be conducted, which would be based on data from consumers. Target population for surveys would be consumers and data would be collected from United Kingdom.

## CONTRIBUTION TO KNOWLEDGE

As it's already mentioned above that the measurement used at the place of trust (i.e. trustworthiness) in celebrity endorsement context is insufficient and lacks in a strong theoretical underpinning. The following study would aim to contribute into the knowledge by providing a sufficient scale and by analysing celebrity-trust with other brand related constructs.

**Keywords:** *celebrity endorsement, trust, cognitive trust, affective trust, corporate credibility, corporate reputation, consumer based brand equity*

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## INNOVATION IN OFFSHORE OUTSOURCING: CONSIDERATIONS UNDER STRATEGIC INTERACTION.

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### ABSTRACT

Research in inter firm cooperation has focused on how individual firms can reduce cost and speed up innovation by sharing their respective competencies. Evidence based on empirical research has shown that improvement and innovation is dependent on knowledge sharing and technological transfer which both depend on strategic interaction. Recent research also indicates the classical view that innovation is initiated under the breast of a single entity or vertically isolated R&D units no longer holds.

*This study addresses essential conditions under which innovation can be mutually created in inter firm cooperation across borders i.e. offshore outsourcing. Offshore outsourcing entails the client (outsourcer) delegating business functions and decision making rights to a vendor (outsourcee) located in foreign location.*

We employ insights from Game Theory with respect to vendor- client relationship. This serves as a framework to explain risk, rationality, payoffs and other elements that affect innovations across borders by incorporating open innovation, outsourcing, goodwill and competence trust.

We conduct a longitudinal holistic case study of a leading Pakistani textile and apparel company dealing with some of the world's leading brands. The analysis focuses on how the company and its main client share resources and technology necessary for innovation under an environment where opportunistic behavior can emerge. This study finds that cooperation in the long term can be sustained if the cost of opportunistic behaviors in the present period is high. In particular if the vendor believes that he stands to gain a lot from future transactions, he will refrain from acting opportunistically. Goodwill and competence trust also have a positive effect on maintaining client-vendor relationship and can foster innovation.

**Keywords:** *Innovation, Game Theory, Offshore Outsourcing, Payoff, Opportunistic behavior*

## **IMPLEMENTING LEAN WAREHOUSING BY USING A WAREHOUSE MANAGEMENT SYSTEM AT THE SAME TIME. A POTENTIAL ANALYSIS**

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### **ABSTRACT**

This WIP paper will give an overview about the current scientific status of Lean Warehousing and up-to-date Warehouse Management Systems (WMS). Lean Warehousing bases on the methods of Lean Production with aiming on increasing of efficiency and effectiveness of warehouse operations. A simple definition for a lean warehouse quoted by Chua and Katayama (2009, p. 3) "...would be a warehouse, that is capable to operate in such manner that the throughput is optimized for warehousing activities". But it will be shown, that the Lean Warehousing approach doesn't consider standard functions of up-to-date WMS, which already have lean functions inside and already do increase efficiency in warehouses. Beside the core functions: inventory control, storage location management, order picking, replenishment, receiving and shipping, a WMS offers a wide range of additional features like batch picking and many others which lead to waste reduction according to the leading thoughts of Lean Thinking, which are avoiding waste and continuous improvement (Myerson 2012). So, both Systems WMS and Lean Warehousing aiming at the same goals and this gap will be closed by comparing these set of functions with the proposed lean methods and tools from the literature review to achieve lean operation in the warehouse. Companies who are planning to implement Lean Warehouse should combine it with their WMS in use to get the most potential out of them.

### **INTRODUCTION**

Today's supply chains have to cope with volatile markets and extremely high customer demands in a highly competitive global market, which allows comparing prices within seconds by the internet. Therefore, companies have to face this challenge and are looking for methods to speed up processes and to do their logistics operation as efficient as possible. Hence lean thinking will be applied in nearly all business operation: Lean Production, Lean Management, Lean Supply Chain and others. The most recent is Lean Warehousing, which tries to adopt lean methods and lean tools for warehouse operations like 5S, KANBAN, MUDA, KAIZEN and JIDOKA just to name a few. There is some academic literature about Lean Warehousing (Spee and Beuth 2012; Sobanski (2009), which explain these tools and describe how to implement and also give a view what to expect and what to avoid in order not to fail. But you can't find the information about the interaction between Lean Warehousing and Warehouse Management Systems (WMS). Indeed Augustin (2010) states that it will be from a great help, but don't



speak about the areas in which there is an overlap and also Dickmann (2008) writes that it makes absolutely sense to link a KANBAN Management with a WMS. Already 1997 in volume number 27 3/4 of the International Journal of Physical Distribution & Logistics an article was published about lean logistics by D. T. Jones et al. (1997), which indicated a gap concerning the right operating systems for lean logistics in asking the question “What are the right warehouse types, locations and operating systems for lean logistics?” (D.T. Jones et al 1997, p. 171). This research question already implicate that the usage of the operating system – a warehouse management system – should be used to achieve lean logistics. Until now the academic literature still don’t provides an answer, whether in context with lean logistics, nor with lean warehousing - which is a specified form of lean logistics applied in warehouse operations only.

## **DESIGN/METHODOLOGY/APPROACH**

Systematic literature review about Warehouse Management Systems and Lean Management in general and Lean Warehousing in particular was used to attain the latest state of these approaches and methods. Now the research goes ahead with primary research starting with an initial model derived from the findings from the literature review. Further research tactics like interviews, questionnaires, focus groups will be used to gather new information on this topic. These results will then be discussed, compared to the initial model and interpreted to present a new model of lean warehouse implementation by considering WMS accordingly.

## **FIRST FINDINGS**

The literature reviews show that the current status of science is still in the state to define which lean methods are suitable for usage in the field of warehousing and which not and to explain how to analyze and how to implement, but without considering WMS. But in fact almost every company with logistics operations uses WMS or an ERP with a logistic module for execution and managing. It was found that approximately 2/3rd of the proclaimed lean tools for lean warehousing could be managed and improved by using corresponding WMS modules like, for example, a forklift guidance system (MUDA), KANBAN, sensors on conveyors (JIDOKA) and JIT etc. Further, it seems that the only thing which is not covered with Standard WMS's, are methods and tools which deal with personnel management and teamwork, like regular team meetings and tools for process analysis like 5WHYS, VALUE STREAM MAP etc.

## RESEARCH LIMITATIONS

This survey doesn't consider ERP-Systems, which also provide various warehouse management functions and are absolutely sufficient for many companies and many ERP software companies have incorporated lean functionalities, including one-piece-flow KANBAN signals and sequencing etc. So this could be an idea for future research.

## PRACTICAL IMPLICATIONS

The outcome of this research could be of great help for software vendors of warehouse management systems to extend their software according the identified gaps between Lean Warehousing and their WMS and to adapt their modules accordingly or to engineer new modules for lean tools for a CIP process. For warehouse manager and Supply Chain Managers it could be also of great benefit to review their warehouse operations and WMS functions to identify on which lean level they currently are. Further, they can use the identified model to plan their lean warehouse project/introduction.

In general the findings would support a sustainable economic development. Bozer states (2012, p. 3) "Although warehouses and distribution centers are vital facilities in a supply chain, applications of Lean in warehousing has been lagging compared to manufacturing and SCM. This created a gap of knowledge for Lean warehousing."

## ORIGINALITY/VALUE

The author will cover the introduced gap by assessing the different lean methods in line with the typical warehouse operations. As result it will end up in a potential analysis, which will be very helpful for managers preparing their decision to implement lean warehousing or even WMS vendors to use it as developing guideline, as well.

**Keywords:** *Lean Management, Lean Supply Chain, Lean Warehousing, Warehouse Management System*

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## **MY NAME IS ROLLAND, LOUIS ROLLAND**

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### **INTRODUCTION**

The conduction of public business activity is subject to rules attributed to the Frenchman Louis Rolland (1877-1956). Louis Rolland, a Professor of the Law School in Paris tried to systematize the basic principles that should govern the operation of a public service in 1938, by creating "Rolland Principles". Rolland's basic principles are: the principle of continuity of public services, the principle of mobility or adjustment and the principle of equality. These principles are worldwide and widely acceptable throughout the business community. The same principles are valid for public contracts as well. The purpose of this article is to discover if Rolland's principles are valid nowadays. The basic questions raised are: Is Louis Rolland diachronic? Are there any applications based on the principles in the 21<sup>st</sup> century? Are there examples of these principles existing in the case of Greek society?

### **PRINCIPLE OF CONTINUITY OF PUBLIC SERVICES**

The principle of continuity of public services requires constant, or, in other words, without stopping, running services. The State's intervention to cover the deficits of public businesses of mutual benefit aims to ensure continuous operation. Rolland's first principle was destined to find a typical example of its application in the field of public enterprises two generations later. In the Greek legal system, constitutional provisions guarantee the continuous operation of public services for the whole society. This is the case of "Greek Radio Television" (G.R.T/E.R.T.) which was the first founding member of the European Broadcasting Union (EBU) in 1950. In 11.06.2013, the Greek Government announced the closure of the Greek Radio Television, turning off live the signal of the public channels, shortly before the end of the program that day. The black on the screens that prevailed that day was a unique event in the history of the member countries of the European Broadcasting Union. For this reason, the employee's union prosecuted a lawsuit to the Government in the Council of State, the supreme administrative court of Greece. The Council of State ordered the suspension of the decision for the closure of E.R.T. only for the parts concerning a) the suspension of the transmission of broadcasting and the operation of websites of E.R.T. S.A and b) the inactivity of the frequencies of E.R.T. S.A. Therefore the Government was forced to proceed with the foundation of a new company to replace E.R.T. This case constitutes a verification of Rolland principle for the continued provision of community service as a public service, like radio and television, despite the fact that the Constitution does not require, explicitly at least, the existence of that kind of service.

## **PRINCIPLE OF ADJUSTMENT OR MOBILITY**

According to the principle of adjustment or mobility, it is necessary that the basic needs of citizens are satisfied, as they are shaped and changed in the framework of socio-economic development. The versatility and adaptability of services are needed to monitor the needs of services of general interest. This situation justifies the changes that occur regularly in public services, which must adapt to technical progress and the evolution of social demand. A Greek example that perfectly reflects this principle is the creation of additional lanes to Attica Tollway. Attica Tollway is a pioneering project constructed on a concession basis and is one of the biggest co-financed road projects in Europe. It constitutes the ring road of the greater metropolitan area of Athens and the backbone of the road network of the whole Attica Prefecture. In Attica Tollway, the public institution called for the creation of an extra lane due to the high utilization of the lane towards Spata as a result of the high resettlement to this area. So, although not foreseen in the relevant contract, the concessionaire was obliged to proceed with widening but with corresponding financial rewards.

## **PRINCIPLE OF EQUALITY**

According to the principle of equality, public companies must respect the principle of equal treatment of citizens. This means that, arbitrary discrimination is not allowed, although differential treatment is possible, if warranted by special circumstances. An essential contractual obligation is imposed between the concessionaires and the users of services even if not explicitly foreseen in the concession contract or in ratifying the convention law. In the case of illegal exclusion of the use of the licensed service, the concessions can file a lawsuit in a court of law, claiming the retribution of financial reconciliation. The public service must be guided by the public interest, without being influenced by private interests. A typical example of application of the principle of equality in the Greek reality is the decision of the Council of State regarding to provisions to families having many children. Members of such families are rewarded with entrance to Universities. The Plenary of the Council clarified that acceptance to Universities is in line with the Constitution “only when the evaluation criteria are purely academic, in other words, the candidates are examined only in relation to their ability in courses and skills relevant to the subject area of the Department of School or School”. According to the above decision, the principle of equality is applied among prospective students without social distinctions between them. The Greek Government is invited to implement this decision.

## CONCLUSION

From the analysis of Rolland's principles and their application in the Greek reality, the timelessness of Rolland's principles is perceived. These principles are applied for the social good and interest. Through these principles, the reasonable functioning of public services for the benefit of social interest is ensured. The above mentioned examples belonging to the Greek society are contemporary and subject to the principles of Louis Rolland. They were chosen because of their great importance in the Greek society. In the future, examination of whether Rolland's principles are still valid and applicable in the case of the private sectors of Greece and other countries as well can become the subject of a more thorough research.

**Keywords:** *Louis Rolland, Principle, Continuity, Public Services, Mobility, Adjustment, Equality.*

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# OPENING THE “BLACK-BOX” OF PLACE-BASED LEADERSHIP. DECONSTRUCTING THE ROLE OF UNIVERSITY SENIOR LEADERSHIP IN CITY/REGIONAL DEVELOPMENT

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## ABSTRACT

Recent inquiries have brought together the concept of institutional entrepreneurship with the study of change within regional innovation systems (Sotarauta and Mustikkamäki 2011). In so doing, they have shed light on the potential for addressing unanswered queries regarding broader regional development processes by looking at the ‘micro foundations’ (Powell and Colyvas 2008) of city-regions and regional development. Seminal studies following the “old” institutionalism tradition remind us that leadership and power are intertwined (Selznick 1984). One area where these foundations remain to be adequately addressed pertains to the role of leadership and power in local economic development, particularly in the tensions between collective regional leadership (Sotarauta 2007) and ‘happy family stories’ (Lagendijk and Oinas 2005). To address this issue, we therefore seek to: (a) explicate how actors constellate within particular regional contexts to create strategic leadership capacity; and (b) explore how these competitive and co-operative tensions play out in practice. Some scholars conceive of institutional entrepreneurship as a strategic relay of power and knowledge in time (Sotarauta and Mustikkamäki 2011). What is more, power is salient in situations involving a constellation of social actors/networks (Owen-Smith and Powell 2008) either within a given organizational field (DiMaggio 1991) or a specific geographic/governance setting (Charles and Benneworth 2001). Hardy and Maguire (2008: 201) contend that “actors do not ‘have’ power, instead they occupy (or fail to occupy) subject positions that, in turn, allow them to exercise power in – and on – a particular field or regional governance setting.

In this paper, we frame our analysis around one particular set of regional development actors, university senior managers (rectors, vice-rectors, etc.), and explore the roles they play in the construction and evolutions of power fields within particular regional development contexts. In particular, we focus on the subject positions played by university senior managers both in their own internal (university) networks, but also within regional policy and corporate governance processes.

The empirical material is drawn from recent qualitative studies on the regional role of universities in Northern Europe – Norway (Tromsø), Finland (Oulu) and the Netherlands (Twente). In each of the three cases, universities have historically been called upon to play an active role in regional

development *inter alia* by help preventing negative 'lock-in' and contribute to regional upgrading by contributing to path- extension and/or creation (Garud and Karnoe 2012). Yet, such processes are politically and normatively laden thus raising conflicts and volitions (Pinheiro et al. 2012). Due to the multiplicity of roles that universities play – within and beyond the region (Benneworth and Hospers 2007) – they are both part of the problem and part of the solution to some of these tensions. Hence, the paper address the following research problem: *What role do senior university managers play in shaping regional coalitions and power networks, and what effects (if any) do these have in processes of regional development and upgrading?*

Conceptually, we adopt the *Strategic Relational Approach* (SRA) devised by Jessop (2001) and further developed by Lagendijk and colleagues (Lagendijk 2007; Varró and Lagendijk 2012). SRA assumes that macro-level structures are inherently relational (i.e. rooted in space and time) and, thus, are subject to strategic manipulations by certain agents who, in turn, embark into collective initiatives to (re-) shape such structures at various levels (macro/meso/micro). According to SRA, strategies and practices are the result of 'structurally-inscribed strategic selectivity', i.e. they are both a reflection of past events (*path-dependency*) as well as future trajectories (*path-shaping*); with actions and solutions becoming discursively mediated and understood against the backdrop of individuals' natural cognitive limitations or information asymmetries (see Simon 1991). More importantly, this process leads to the rise of new discursive and hegemonic (i.e. uncontested) practices which, over time and as they diffuse, are adopted and legitimated by other powerful agents and organizations, hence becoming regularized and institutionalized in new forms of (local and regional) governance. More specifically, the paper illuminates the kinds of roles that university senior managers play, and interprets them in light of the territorial developmental, regional upgrading and institutional entrepreneurship literatures.

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## **ELDER EMPLOYEE RETENTION AND RECRUITMENT IN LITHUANIA: PREVAILING ATTITUDES AND PRACTICES, PERCEIVED BARRIERS AND POTENTIAL DRIVERS**

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### **ABSTRACT**

The national and historical contexts play a highly relevant role in the understanding of the prevailing attitudes and stereotypes towards diverse groups of employees (Kamenou, 2007; Syed & Özbilgin, 2009); however, so far it has been mainly studied from the Western country perspective, which underlines the relevance of research undertaken in other contexts (Shen et al, 2009; Jonsen, Maznevski & Schneider, 2011).

This paper aims to explore the main factors that affect elder employee employability in Lithuania, which represents the so far under-researched post-Soviet context. It is also noteworthy that elder employees will not only make a major source of labour in the country in the near future due to fast decreasing and ageing overall population. Elder employees (55 plus) also constitute the most widely discriminated social group in the country's labour market, which is in contrast to the general EU situation, where elder employees do not even fall under the top three most discriminated social groups (Eurobarometer, 2012). It should also be taken into account that elder employees represent a unique labour generation in Lithuania and other Baltic countries, as their educational background and considerable part of work experience date back to the Soviet times. Therefore the paper approaches the elder employee employability issue in Lithuania by seeking to identify employer attitudes to elder employees, prevailing recruitment and retention practices, and perceived barriers and potential drivers in dealing with an ageing workforce.

The study is built on a qualitative approach comprising semi-structured interviews with 20 most senior HR or general managers (where organisations did not have an HR function/position) from different size, industry and sector organisations.

Empirical findings show that no specific, designed/ adopted for elder employees in particular, HRM policies or practices related to their recruitment and retention are employed by organisations in Lithuania. Similar to Western countries, negative attitudes towards elder employees prevail in organisations in Lithuania. The reasons behind those attitudes are by and large parallel to those found in other countries; however, a number of specific factors (absence of skills, attitudes to work, personality features) related to the Soviet heritage have been identified too. Besides the study has

determined a number of individual, organisational and institutional-sociocultural level factors (barriers and drivers) that have an impact (positive or negative) on elder employee employability.

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## THE ROLE OF SOCIAL INNOVATION IN CREATING A METHODOLOGICAL FRAMEWORK ADAPTED TO REALITY

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### ABSTRACT

This paper presents a methodological framework that can be applied for analysing social innovations in the process of business continuity and can be used by companies to adapt their activities to the current market demands. These innovations are intended for an innovative company, with employees ready for new ideas.

The article focuses on several parts: the first part refers to the concept of social innovation, the second one show how social innovation can be analysed, focusing on methodological aspects and the third part presents the conclusions. Innovation is a complex concept and it cannot be defined without tracking all aspects and interactions which were identified in the innovation cycle.

Given the present economic crises and the low interest in applied social innovation, people tend to choose not making changes in their life and work despite new and innovative ideas; this can be taken as an approach for to avoiding risks and activity disruptions.

As results our expectations merge within the idea that a complex society requires complex answers at all problems and personalised applications of any new theory or idea. Therefore the purpose of the paper is to propose concrete ideas of social innovation that can be easily put into practice.

**Keywords:** *virtual social innovation, social development*

## **SPORT SPONSORSHIP: THE IMPACT OF SPONSOR IMAGE ON PURCHASE INTENTION OF FANS**

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### **ABSTRACT**

The purpose of this study is to examine the impact of sponsor image on one major behavioral outcome, fans' purchase intention. Furthermore, following the sponsorship literature, we explored whether sport activity involvement and team attachment enhance sponsor's image among football fans. We tested our hypotheses empirically using a questionnaire sent to the fans of a prominent Greek football team. A total of 618 questionnaires were successfully completed and analyzed by means of the SPSS. Our findings show that Sponsor Image has a significant effect on the purchase intention ( $R^2=0,813$ ,  $p<0.001$ ) regardless of the product fit. Sponsor image was weakly linked with sport involvement and team achievement.

### **INTRODUCTION**

Sponsorship is a company's investment in cash or kind, for creating a business-to-business relationship with a sport team, in order to gain publicity and awareness within a certain target audience, via the support of an activity, not directly linked to their business (Biscaia et al., 2013). Sport is a natural area for sponsorship, given that sponsors are more willing to invest in sport associations and clubs, which have a strong bond with a mass audience, as goodwill toward them is possible to be transferred to the sponsor's brand or products (Madrigal, 2001). Despite the evident importance of sponsorship activities, academic research has mainly focused on the evaluation of abstract corporate sponsorship instead of actual team sponsors (Biscaia et al., 2013). The purpose of this study is to single out the key variables in the sponsorship relationship, as well as to examine the impact of actual sponsors' image on football fans' purchase intention. Furthermore, in accordance with sponsorship literature, the role of sport activity involvement and team attachment was investigated, in enhancing sponsor's image between football fans.

### **THEORETICAL BACKGROUND**

According to sponsorship literature, it is crucial to investigate whether sponsorship produce some form of benefit to sponsoring companies in terms of fans' attitudes towards the company itself or their intention to purchase the company's products (Pope, 1998). Sport activity involvement and team attachment are among the main attitudinal constructs which play a crucial role in the formation of sponsor image and by extension in sponsorship behavioral outcomes, such as purchase intention (Alexandris et al., 2007). Sport activity involvement refers to the degree to which an individual shows interest in a particular sport activity and is positively related to attitude towards sponsors (Biscaia et al., 2013). Team attachment represents a form of psychological connection toward a sports club, refers to the connectedness of an individual's self-concept and the experience of the sports club's success and failures as one's own, and it can influence individual's willingness to engage in behaviors and attitudes that support the club and by extension, the sponsors (Gwinner and Swanson, 2003). Recent research addressed a variety of attitudinal and behavioral variables, such as sponsor image and purchase intentions, as high level sponsorship outcomes (Alexandris et al., 2007). Furthermore, the relatedness of sponsor's product fit to the sponsored team has been shown to be an important factor in determining how fans respond to sponsorship (Biscaia et al., 2013). However, research regarding sponsorship effectiveness remains both tenuous and contentious, as the interactions between the proposed variables are complex and dynamic.

## **METHODOLOGY, RESEARCH DESIGN AND DATA ANALYSIS**

The empirical data for this study were collected from a prominent Greek football team's fan clubs base making reference to its actual current sponsors (Smith, et al 2008). We ran a quantitative research. A total of 618 questionnaires were collected by a team of 5 researchers, and were completed in the presence of the surveyors. We draw our sample from fan club members because they represent a significant part of the entire fan base targeted by sponsors. The method used for the purpose of this research, is consistent with previous studies of similar issues and populations (Smith, et al 2008). A total of 618 questionnaires were successfully completed and analyzed by means of the SPSS

## **RESULTS, DISCUSSION AND IMPLICATIONS/CONCLUSIONS**

Sponsor Image was measured with three distinct variables i.e. corporate image, product/service image and corporate quality. We also measured purchase intention for the products/services of each sponsor. Using single regression analysis, all three independent variables were found to have a significant ( $p < 0.001$ ) positive effect with the intention to purchase the sponsors' products/services. Corporate image and product/service showed a strong effect ( $R^2=0.813$  and  $R^2=0.734$  respectively) whereas the effect of corporate quality was found to be weak ( $R^2=0.110$ ). The correlation between the first two was extremely

strong ( $r=0.948$ ,  $p<0.001$ ); therefore, to avoid multicollinearity issues, we ran a multiple regression using only the first one and the corporate quality variable. When examined together, corporate quality was not found to have a significant effect, thus leaving only the effect of the corporate image to significantly explain purchase intention. ( $R^2=0.813$ ,  $p<0.001$ ). To control for a possible effect of the product fit, we ran an additional multiple regression analysis using as independent variables the 14 evaluations of each sponsor's corporate image. All but one were found to have a significant effect on purchase intention with a cumulative  $R^2=0.729$  ( $p<0.001$ ). When the independent variables were weighted by the respective product fit, the effect on the intention to purchase was found to be much lower. Unexpected as this might be, it may well be evidence of an even stronger effect of sponsor image on intention to purchase. Fans have the intention to purchase the products of their team's sponsors even when they are not specifically interested in the product category they belong. This is certainly a proposition that needs to be further researched. Sport involvement was found to have a significant positive correlation with the sponsor image, although weak ( $r=0.25$ ,  $p<0.001$ ). In regard to sponsor image, a small differentiation was also found between those who watch their team's matches alone and those who watch them publicly (in the field or at a café) with friends. The latter have a more positive opinion for the team's sponsors. Team achievement was not found to be significantly linked with sponsor image. Team attachment was found to have a significant ( $p<0.001$ ) but weak positive correlation with sponsor image.

**Keywords:** Sponsorship, sponsor image, purchase intention, team attachment, sport involvement

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# INCENTIVISING EMPLOYEE SUSTAINABILITY BEHAVIOUR THROUGH HUMAN RESOURCE MANAGEMENT

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## ABSTRACT

Organisations have realised the need to ensure long-term survival in the external environmental and social environment. The reasons for this can be attributed to a changing and more environmentally aware society, which can put enormous pressures on policy makers, institutions and organisations alike. Indeed, organisations have begun to implement measures that reduce the impact on the natural and social environment, not only to comply with legal obligations, but also to gain competitive advantage (del Brio *et al.*, 2007). However, the problem of how to instigate sustained environmental behaviour change at all levels in the organisation is one that is yet to be successfully addressed (Jackson *et al.*, 2011). This presentation aims to provide an overview of the literature surrounding sustainability behaviour through sustainable Human Resource Management (HRM) in order to develop a better understanding of the role of HR in developing sustainability-driven behaviour change among employees. The extant empirical and theoretical evidence in these areas of research are brought together and the gaps within the literature are identified. Furthermore, this presentation will report on the initial results of a planned study into the challenges organisations are currently facing in achieving increased sustainable practice in employees and outline the planned methodological approach for the next stages of this research project.

## SUSTAINABILITY THROUGH HRM

HRM bears a high potential to strategically embed sustainability commitments into all levels of the organisation. Daily *et al.* (2003) identified that improved environmental performance should be supported by human resource practices. Wilkinson *et al.* (2001) emphasised that if sustainability resides within HRM, a more holistic and long-term perspective and application would be beneficial. Furthermore, the authors (*ibid*, p. 2144) state that '*motivating and encouraging employees to assume a proactive environmental posture becomes the new objective of the human resource strategy*'. Indeed, the literature highlights that after the development from personnel management to HRM to strategic HRM, the next stage in the evolution of HRM would be sustainable HRM. Further research that addresses these emerging new paradigms for HRM is needed, particularly to develop a better understanding on how it can improve sustainability behaviours of employees and organisations.



Filling the gap identified by exploring the ways in which sustainability can be implemented through HRM perspective forms an important part of this study.

The greening of HR depends on the strategic integration of sustainability aspects into the overall business strategy and on management support. Through HRM, the general policies and practices of an organisation can be aligned to the organisation's wider sustainable development objectives, which are considered fundamental in achieving these. Research carried out in Brazilian manufacturing companies indicated that managers perceive some HR activities as more promising to achieve environmental management objectives than others (Jabbour and Santos, 2008). This could be the case because individuals feel more inclined to espouse activities they deem meaningful. This perspective indicates that the underlying success factor for sustainability issues could reside within the behavioural intentions of organisations and employees. Therefore, the study aims to explore behaviour constructs that can have an effect on sustainability initiatives.

## **ENVIRONMENTAL TRAINING**

Environmental training (ET) can be seen as an antecedent to increased sustainability behaviour in organisations. An extensive and systematic analysis of the extant literature in the area of ET was conducted by Jabbour (2013). The work includes a comprehensive list of the most relevant published papers in this area and, as a result of the analysis, the author provides suggestions for future research considering a variety of factors such as national context, sectors, methodologies, analytical tools, focus on ET, phases and benefits of environmental management (EM). The extant literature is mainly conceptual or exploratory and there is a paucity of research that focuses on integrating and systemising the acquired knowledge in this area. Potentially, this knowledge could help organisations to implement ET and manage more strategically and coherently with the overall business strategy.

## **GREEN BONUSES**

To promote sustainability behaviour on an individual level, organisations can embed sustainability aspects into their bonus systems, and thus, motivate employees to achieve the desired behaviour by offering financial incentives. It has been highlighted that for some companies, because it is relatively easy to perform well in the area of sustainability, these kinds of bonuses could be used as an easy way of ensuring extra income in exchange for little effort (in Kolk and Perego, 2013). Furthermore, external benchmarks have been subject to extensive criticism in terms of reliability and relevance. This shows that research in green bonus schemes is still nascent. Thus, this presentation will report on relevant organisational examples from a pilot study, which informed the choice of a mixed-methods approach.

## SUSTAINABLE BALANCED SCORECARD

It is claimed that there is a misconception about the benefits of pursuing a sustainability agenda (Nidumolu et al., 2009). The authors state that CEOs mistakenly ponder the benefits against the costs of implementing sustainability, because their research shows that 'sustainability is the mother lode of organizational and technological innovations that yield both bottom-line and top-line results' (Nidumolu et al., 2009, p. 2-3). In other words, pursuing a sustainability agenda goes beyond breaking even financially, which is often a reason for rejecting initiatives. Some organisations have already realised the potential long-term benefits of a sustainability agenda and begun to treat it as an integral part of their performance management systems. For example, Royal Dutch Shell PLC have created and implemented a balanced scorecard system for executives that includes environmental properties and that has a direct effect on annual bonuses (Hua, 2011). Thus, empirically testing if sustainability aspects of a balanced scorecard system in particular could incentivise sustainability behaviour in employees forms an important part of this on-going study.

**Keywords:** *Sustainability, Corporate Social Responsibility, Behaviour Change, Human Resource Management*

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## **FINDING NEW WAYS TO MOTIVATE KNOWLEDGE WORKERS: WHY GAMIFICATION CAN BE A SOLUTION**

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### **ABSTRACT**

As the global economy is moving into the knowledge-intensive direction and a new breed of knowledge workers (so called digital natives) is on its way, there is a need for intensive management innovations. To address this issue, the goal of the current paper is to explore an innovative way to motivate knowledge workers, i.e. gamification. Gamification – the use of game elements and game design techniques in non-game contexts, e.g. in workplace environments – has the potential to combine the intrinsic motivational factors and digital technologies to address the new generation of knowledge workers. By invoking cognitive intrinsic motivations (e.g. feelings of mastery) and using the social aspects of games, gamification is able to induce an increase of engagement and motivation, stimulate creativity, and improve learning processes and knowledge diffusion. In the current paper, we evaluate the state of research on the use of gamification in business context and study the examples of employing gamification for motivating knowledge workers.

As the global economy is moving into the knowledge-intensive direction and a new breed of knowledge workers (so called digital natives) is on its way, there is a need for intensive management innovations. Knowledge workers are those who “think for a living” (Davenport, 2005, p. 10), and they cannot be “managed” in the traditional way because they resist a command and control culture (Horwitz et al., 2003). Digital natives pose additional challenges to management as they bring with them both unique knowledge of digital technologies and higher requirements for applying it in the workplace. To address this issue, the goal of the current paper is to explore an innovative way to motivate knowledge workers – gamification, i.e. the use of game elements and game design techniques in non-game contexts, e.g. in workplace environments (Werbach and Hunter, 2012). We evaluate the state of research on the use of gamification in business context and study the examples of employing gamification for motivating knowledge workers. Due to the limited research on gamification, this study acts as a starting point for further exploration of the use of gamification in the workplace.

There have been many studies looking on the motivation of knowledge workers. Their main idea is that use of extrinsic motivation (e.g. promotion, bonuses or an increase in salary) is not very effective strategy for managing knowledge workers (Horwitz et al., 2003). Creative motivation often stems from intrinsic factors such as curiosity, satisfaction, and positive challenge (Amabile, 1996). Therefore, the factors that are important in motivating knowledge workers include challenging work, creating a work

culture permitting relative autonomy, celebrating achievement and developing a sense of purpose, direction and excitement (Horwitz et al., 2003).

Using games in the workplace is not completely new. The use of role-playing games in team building and “Employee of the Month” contests have been there for a long time. However, gamification takes it up to a new level and employs digital technology to add “gamefulness” to existing systems and make the everyday work experience more exciting. Companies can use gamification in various ways. For instance, they may motivate employees to provide process or product improvement suggestions with levels, points and leaderboards. Or they may add a series of fun “missions” to boost participation in their professional development programs (as Deloitte Learning Academy did). The gamified solutions enable goal-setting by providing objectives, rewards, tracking, and monitoring the given activities and in this way invoke cognitive intrinsic motivations, e.g. feelings of mastery (Werbach and Hunter, 2012). The social aspects of games are also an important driver of motivation. Employees can collect badges, rise in high-score lists and collect points for social reasons, such as receiving recognition. Moreover, knowledge workers value their knowledge and do not share it easily. Companies need to provide necessary incentives for knowledge sharing. A game community based on the virtual interaction among its members can promote the necessary information exchange, social learning and viral diffusion of knowledge. The research shows that gamification increases and improves social cohesion by strengthening relationships and mutual trust (Galletta, 2013).

Many companies have already employed gamification, and it is predicted that by 2015 50% of organizations will gamify their processes (Gartner, 2011). For instance, Google employees are encouraged to play during their lunch break by betting fake money, Goobles, on certain outcomes as part of a company-wide predictions market. Google believes that it helps to generate creative ideas and encourages Google employees to work harder to achieve a certain outcome they have predicted. Canon’s repair technicians learn by dragging and dropping parts into place on a virtual copier. Cisco has developed a simulation game called myPlanNet in which players become CEOs of service providers, and adopted gaming strategies to enhance its virtual global sales meeting and call center, lessening call time by 15 percent and improving sales between 8 percent and 12 percent.

However, in some cases gamification may promote competition and individual achievement while complex business problems need cooperation (Spencer, 2013). Designing an effective gamified solution requires informed application of game design. It is important to use right game elements in a right way to create a unique game experience, which is fun, engaging, and motivating. More research on how to apply gamification in the workplace environments is necessary.

**Keywords:** *Employee motivation, knowledge workers, knowledge economy, gamification.*

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## **GUIDED EFFECTUAL ENTREPRENEURSHIP: A TRIZ-BASED APPROACH**

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### **ABSTRACT**

The theory of effectuation advances a decision process employed by entrepreneurs that differ substantially from traditional views of decision-making, dealing with uncertainty and managing risk. Entrepreneurs that employ this theory develop the capacity to take decisions under conditions of uncertainty and take calculated risks when approaching markets. However, the theory of effectuation was developed on the basis of expert entrepreneurs (Sarasvathy 2008) and has not been sufficiently modified to deal with novice entrepreneurs within the Small to Medium enterprises.

In modifying effectuation, we used a heuristic problem-solving technique called TRIZ theory to assist novice entrepreneurs in the space of small to medium enterprises. TRIZ is a powerful creative problem-solving technique that has proved useful in guiding decisions and actions in complex engineering projects (Savransky 2000, Rantanen and Domb 2002, Polivinkin 1995, Pitso 2013).

In this presentation, we share the conceptual and theoretical framing of the guided decision-process approach employed by novice entrepreneurs that have been selected purposely from a pool of community members that have been explicitly trained on this guided decision process approach. This mainly qualitative study makes use of vignettes to present the results of the observation, semi-structured and videotaped data drawn from three budding entrepreneurs that were seed-funded on the basis that they made use of the guided decision process approach.

## CORPORATE ETHICS AND KNOWLEDGE SHARING: ARE THEY RELATED?

### THE MODERATING ROLE OF ORGANIZATIONAL JUSTICE

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#### ABSTRACT

In recent years, knowledge has been recognized as a fundamental resource of competitive advantage conducing to corporations' sustainability (Chan and Chao, 2008; Wong, 2005). The process of knowledge management includes a number of activities, but the most frequently discussed is knowledge sharing (Ford, 2001 in Al-Alawi et al., 2007). Highlighting the importance of this resource, Lin (2007) notes that organizations' moral challenge is to manage it effectively while the unwillingness towards knowledge sharing should be regarded as a crucial ethical issue (Lin, 2007; Lin and Joe, 2012). Indeed, Styhre (2002, p.232) proposes that knowledge-based economy is founded "on the ethics of sharing, an ethics of giving", while Baskerville and Dulipovici (2006, p.6) argue that in an economy of sharing "employees share knowledge as a form of self – expression".

In previous studies, organizational justice was found to affect knowledge sharing via trust or organizational commitment (Lin, 2007; Fang and Chiu, 2010; Schepers and Berg, 2007; Oldham, 2003 in Cabrera and Cabrera, 2005). In addition, De Long and Fahey (2000) highlight the role of culture suggesting that an ethical and trusting organizational culture acts as a facilitator to the knowledge-sharing process (Ruppel and Harrington, 2001; McDermott and O'Dell, 2001; Bock et al., 2005).

In the proposed theoretical framework organizational justice is examined as a potential moderator of the relationship between knowledge sharing and corporate ethics. Previous studies in Greece have focused on organizational justice (Palaiologos et al., 2011; Coyne et al., 2013), knowledge sharing (Brachos et al., 2007; Chatzoglou and Vraimaki, 2009) and ethics (Kavali et al., 2001; Peppas and Peppas, 2000) but not on the relationship among these three variables. The paper aims to contribute to the knowledge sharing literature by suggesting potential drivers in an economy of sharing.

**Keywords:** *Knowledge sharing, organizational justice, corporate ethics, Greece.*

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## WELLBEING: FROM AN ILLUSORY MODEL TO A TANGIBLE RESERVE

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### ABSTRACT

Wellbeing is a multifaceted artificial conception that depicts the satisfaction of persons contained by an area or economy, and subsequently, its development characterizes one of the uppermost and most challenging goals for politicians. The toil in measuring and controlling this variable stands in determining its relationship with additional time-honoured and perceptible financial, political or societal meters. As a consequence, the paper strains to outspread the variety of pointers by propositioning and empirically testing the relation that occurs amid the level of quality of life and the value added by services to total GDP.

### INTRODUCTION

Quality of life represents an interdisciplinary topic that was developed in order to understand and mitigate the social and economic problems both at national and individual levels. The types of relations that exist between this concept and economic, political and social indicators, both in the form of prerequisites or consequences, are significantly complex and insufficiently studied.

The paper continues on the trend of supporting the importance of including population measures in the estimations of quality of life indicators, rather than simply developing an indicator based solely on economic indices. Nevertheless, the impact that quality of life has on the development of an economy, and the opposite function, continues to represent a unresolved scholarly debate with potentially important effects on the creation of future strategies.

Recent studies stress the importance of these indicators and their rising influence on the development and implementation of public policies. David Cameron's speech given in 2006 at the *Google Zeitgeist Europe Conference* illustrates the political approach toward quality of life concepts. Cameron, then a member of the British opposition party, stated that "improving our society's sense of well-being is, [...], the central political challenge of our times". Therefore, quality of life studies represent a topic of interest that can play an active role in public policies. Previous scientific debates have portrayed these indices as tangible, rather than illusive concepts, which can be used as a proxy for implementing such policies.

The current discussion deals with the impact that the structure of an economy can manifest on the general quality of life experienced by the population and the possibility of considering the

“tertiarization” of an economy as a prerequisite for increasing the general well-being of the population.

In this manner the article strides to justify the possibility of viewing the economic restructuring as a comprehensive indicator for determining, understanding and predicting future levels of quality of life.

## LITERATURE REVIEW

The concept of quality of life can be defined from three approaches, comprising normative ideals, experience of individuals and satisfaction of preferences (Diener and Suh, 1997). While the first two approaches are difficult to quantify and assess, they have a strong impact on the final result, in the form of the well-being perceived at individual level. The determinants for the quality of life can be either objective or subjective. Objective indicators, comprising economic, political, health related aspects sum up the opportunities for achieving a specific level of well-being in a given region at a certain time, however, not the actual level perceived by individuals (Costanza, 2008). The way in which people experience their needs, hence, the quality of their lives, is ultimately subjective (Ekins and Max-Neef, 1992). Thus, the analysis of statistic indicators, if possible, has to be complemented by a comprehensive assessment based on direct communication with individuals.

That being said, the latter of the three approaches proves to be more tangible, being widely accepted and utilized by policymakers, as it incorporates the economic notions of utility and efficiency. Moreover, previous findings suggest that subjective well-being is consistently correlated with the level of income across nations (Diener and Biswas-Diener, 2002).

Nevertheless, studies have pointed out that indicators such as GDP per capita are insufficient in predicting the level of quality of life, as other factors in the form of measures of poverty, inequality, health status, education status, gender bias, empowerment, governance and subjective well-being play a significant role (McGillivray, 2005). Assessing the quality of life solely through this economic indicator proves to be a flawed undertaking as GDP per capita disregards the income distribution in any economy. Furthermore, GDP was never intended as a measure of population well-being, representing merely the tally of products and services bought and sold in a given period (Cummings et al. 2003, 160).

Thus, the current discussion will emphasize the importance of determining other economic and development indicators that could help describe and predict the level in quality of life across economies.

There are arguments to support the notion that the “natural process” of human society evolution implies an unavoidable transformation from agricultural based activities to industry and ultimately towards services (Cheng and Blanchard, 2009). Since the middle of the twentieth century studies

indicated that most, if not all, of the world developed economies were shifting their focus from industry and were fast becoming predominantly services based (Fuchs, 1969).

The migration of labour and capital from agriculture and industry to the services sector has altered consumption patterns as well as many population measurements. The tertiarization of economies has been synchronized with a sharp rise in female employment and, as a consequence, has generated further demand for services. This phenomenon takes place as households with working wives have been shown to spend increased percentages of total income on the acquisition of services (Fuchs, 1980).

While there are telling differences between the concepts of quality of life and standard of living, the latter representing a great component of the former, their assessment can be seen as being intertwined. Changes in the economic structure and the evolution of average productivity have influenced the standard of living in the last decades and concurrently have dictated shifts in terms of improving the quality of life (Easterlin, 2000). In the last three decades of the twentieth century, at the end of the tertiarization process in the United States, the average productivity has grown sharply, leading to new levels in quality of life. As a telling measurement of this phenomenon, the necessary working hours for an average individual to acquire a new television set shifted between 1974 and 1994 from 3 weeks to 3 days (Templeton, 1999).

## DISCUSSIONS

Either directly or in mediated forms, the structural change of an economy, through the increased role of the services sector, both in terms of employment or productivity can be perceived as having a significant impact on the well-being of individuals.

The quality of life index, as already computed by well-established institutions, represents a synthetic indicator constructed from a combination of economic, social, political and environmental datasets. Its relevance can be tested by observing the correlation it generates in relation with other well established indicators which were not utilized in its initial formation.

Through an empirical approach, the relation that exists between the value added by services as percentage of GDP and the quality of life index can be assessed. By using dataset provided by the World Bank and the International Living Quality of Life Index for the years 2009 and 2010, the results can be identified for a number of 148 and 123 nations respectively. The exclusion of economies from the analysis was performed solely on the basis of lack of information for the chosen time frame.

The main hypothesis tested states that the larger the contribution of services to GDP, the higher the level of quality of life becomes.

The results for the first year (see Table no.1) indicate a correlation coefficient of approximately 0.68 which can be tested for a level of confidence corresponding to 99%. As the regression involves a single independent variable, the coefficient of determination, has the same value as the correlation, implying that 68% of the variation in quality of life can be supported by the variation of the value of services in overall value of GDP.

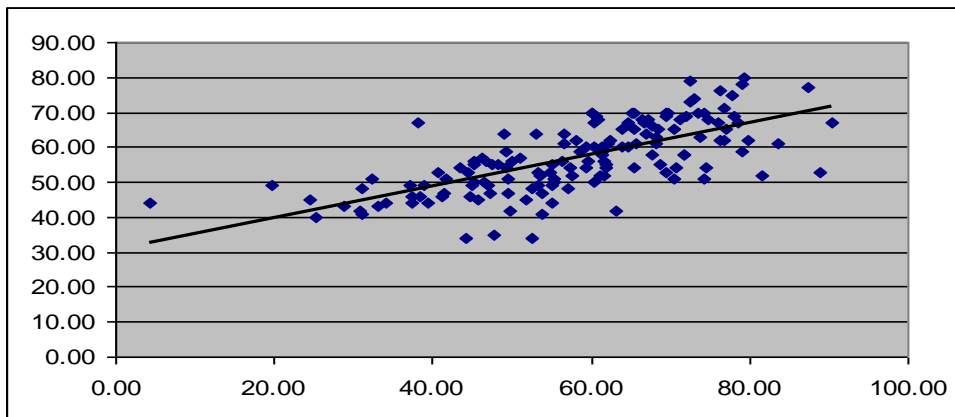
**Table no.1 The relation between services percentage in GDP and the quality of life index across countries in 2009.**

Regression Statistics						
Multiple R	0.682909					
R Square	0.466365					
Adjusted R Square	0.46271					
Standard Error	7.267117					
Observations	148					
ANOVA						
	df	SS	MS	F	Significance F	
Regression	1	6738.427	6738.427	127.5952	1.18E-21	
Residual	146	7710.404	52.81099			
Total	147	14448.83				
	Coefficients	Standard Error	t Stat	P-value	Lower 95%	Upper 95%
Intercept	30.91956	2.381989	12.98057	4.21E-26	26.21193	35.62719
X Variable 1	0.448724	0.039725	11.2958	1.18E-21	0.370214	0.527234

Source: Computed based on datasets provided by International Living Quality of Life Index, <http://www1.internationalliving.com/qofl2011/> , and The World Bank Indicators, <http://data.worldbank.org/indicator>

The plot chart constructed on the same set of data supports the notion that a linear function can be utilized in describing the relation identified (see Figure no.1).

**Figure no.1 Plot chart describing the relation between services percentage in GDP and the quality of life index across countries in 2009.**



Source: Constructed based on datasets provided by International Living Quality of Life Index, <http://www1.internationalliving.com/qofl2011/> , and The World Bank Indicators, <http://data.worldbank.org/indicator>

The consistency of the finding is supported by the results for the year 2010 (see Table no.2), as both the correlation coefficient and the regression coefficients undergo a very limited transformation. The result can once again be tested (using the t Student) successfully for a level of certainty of 99%.

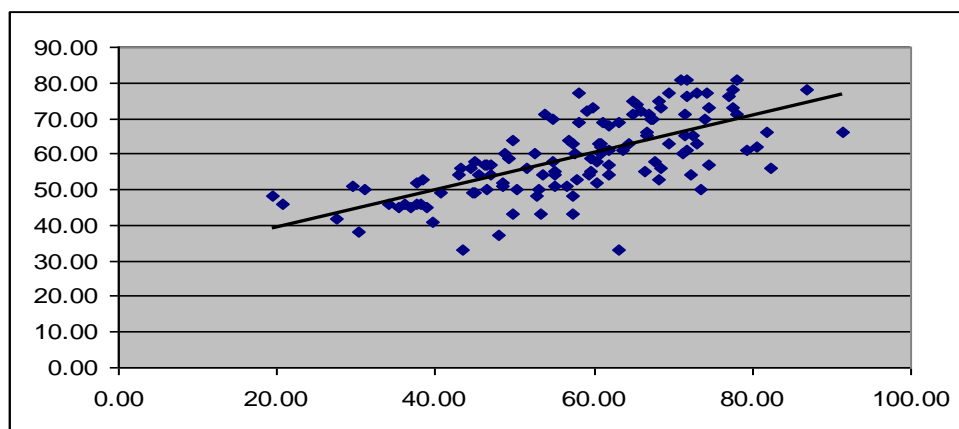
**Table no.2 The relation between services percentage in GDP and the quality of life index across countries in 2010.**

Regression Statistics						
Multiple R	0.673636					
R Square	0.453785					
Adjusted R Square	0.449271					
Standard Error	8.204635					
Observations	123					
ANOVA						
	df	SS	MS	F	Significance F	
Regression	1	6766.923	6766.923	100.5247	1.37E-17	
Residual	121	8145.24	67.31603			
Total	122	14912.16				
	Coefficients	Standard Error	t Stat	P-value	Lower 95%	Upper 95%
Intercept	29.00318	3.104783	9.341452	5.97E-16	22.85644	35.14991
X Variable 1	0.521411	0.052005	10.0262	1.37E-17	0.418454	0.624369

Source: Computed based on datasets provided by International Living Quality of Life Index, <http://www1.internationalliving.com/qofl2011/> , and The World Bank Indicators, <http://data.worldbank.org/indicator>

The plot chart, while being slightly more spread out, retains the basic shape of a linear function (see Figure no.2).

**Figure no.2 Plot chart describing the relation between services percentage in GDP and the quality of life index across countries in 2010.**



Source: Constructed based on datasets provided by International Living Quality of Life Index, <http://www1.internationalliving.com/qofl2011/> , and The World Bank Indicators, <http://data.worldbank.org/indicator>

The results for the two cross-section analyses support the existence of a linear function in the form of:

$$\underline{Y = 30 + 0.45 X} \quad \text{Equation (1)}$$

Where: Y represents the quality of life index;

X represents the value added by services to GDP (in percentages).

According to the initial findings, this relation can be used to predict changes in quality of life levels based on the evolution of economies in terms of services to GDP. As most developing countries are still fully engaged in a process of transition from agriculture and industry towards services, their future quality of life is expected to grow. Thus, special interest arises in the case of nations that are still relying predominantly on industry and manufacturing while concurrently manifesting little success in bolstering their service sector.

## CONCLUSIONS

Quality of life represents a complex concept describing the average level of satisfaction, fulfilment and security. While subjective measurements are vital in describing individual perception, policymakers

rely predominantly on objective indicators, as they are easily and comprehensively quantifiable. Previous studies point out that economic indicators like GDP per capita and other income values, while being extremely necessary in developing policies, are not sufficient in describing the phenomena. Thus, other realistic and tangible indicators have to be identified and tested, as to widen the range of tools which could be used in assessing and predicting quality of life.

The current discussion identifies a significant relation between the value added by services to GDP and the quality of life index, characterized by a linear single variable regression, a correlation coefficient of 0.68 and a level of confidence of 99%.

The discussion can be augmented by incorporating more cross-section years and possibly identifying more economic structure indicators to the relation.

**Keywords:** *quality of life indicators, human development, economic growth, tertiarization, services sector.*

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## ASSURANCE LEVEL FOR SUSTAINABILITY REPORTING: EVIDENCE FROM GRI

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### ABSTRACT

Sustainability reports have become a part of the disclosure of companies. As shown in a study by KPMG (2013), the number of sustainability reports accounts for 93% of the companies in the G250 index. Despite the importance demonstrated by the increasing attention paid to sustainability reporting, with few exceptions (see the France Law 77/69 of 1977, which introduced the requirement of a social report for companies with more than 720 employees; this number was decreased to 300 in 1982), this practice is not mandatory by law. There are conflicting opinions about the mandatory publication of sustainability reports. Manetti and Becatti (2008, p. 289) stated that this gap “could be bridged by means of generally accepted principles for sustainability reporting, above all if the public authorities were to intervene with *ad hoc* legislative provisions.” On the other hand, a wider range of standards and improved flexibility of the tool would favor the extension of its use to several contexts and industries (Kolk, 2004).

Despite the increasing diffusion of sustainability reporting, it is still considered a secondary tool and is not used by shareholders, lenders, customers, employees, or local communities (Gray, 2001). However, in the post-Enron era, companies have an increasing need for transparency in order to regain the trust of their stakeholders. In fact, the financial crisis has increased the attention paid to the quality of a firm’s information and the transparency and credibility related to the management’s activities.

To fill the gap of credibility, it is necessary that a professional third party, as a professional, guarantee the disclosure of the sustainability report. The survey recently published by KPMG (2013) indicated that the number of assured reports has increased. This survey revealed that the percentage of G250 companies that published a sustainability report and decided to invest in external assurance rose from 46% in 2011 to 59% in 2012. Furthermore, two out of three of these companies choose to employ one of the Big 4: accounting firms. This result is consistent with the assumption that the auditor is a third party that cuts the agency costs related to the financial statement prepared by managers (Jensen and Meckling, 1976; Krishnan, 2003). Hence, the perceived reputation and assurance competencies of the Big 4 accounting firms have propelled them to their dominant position in the global market with regard to the assurance of sustainability reports (O’Dwyer, 2011).



This rising trend is also demonstrated by the attention paid to sustainability reports by several accounting international institutes, which, in recent years, have published a few documents for guide auditors in the assurance role. Previous studies (Junior Mori *et al.*, 2014; Manetti and Becatti, 2008) found that the two international assurance standards ISAE 3000 (IAASB, 2011) and AA1000 AS (ISEA, 2008) are the most frequently used. In January 2005, the International Auditing and Assurance Standard Board (IAASB) issued the ISAE 3000. It addresses qualified accounts auditors, and it concerns the external verification of non-financial reports. The ISAE 3000 identifies two different levels of assurance: reasonable assurance and limited assurance. Instead, the Institute of Social and Ethical Accountability (ISEA) published the AA1000 AS in March 2003. The AA1000 AS provides practitioners with a methodology to evaluate how and in which measure a company tries to identify, prioritize, and respond to its sustainability issues. Both assurance standards were updated in 2011 and 2008, respectively.

Researching the main differences in the users of the two standards, previous studies found that the ISAE 3000's definition of assurance is more technical than that of the AA1000 AS. According to Junior Mori *et al.* (2014), non-accounting professionals are likely to use the AA1000 AS framework, and accounting firms prefer ISAE 3000.

This paper aims to build on previous studies on assurance standards and assurance quality levels by performing an in-depth analysis in light of the materiality principle in sustainability reporting. In our analysis, we consider private companies that published their reports in the Global Reporting Initiative (GRI) database in 2013. To access the most complete and up-to-date database, we asked GRI directly to download an extraction on 20 March 2014. We analyzed all reports published by 189 private companies with levels A+, B+, and C+, which were checked by GRI and assured by an external independent entity. Despite the findings of previous studies that considered only the A+ level, we believe that according to the new GRI G4 guidelines, the level of accountability follows the principle of *materiality*. Therefore, it is not directly linked to the number of indicators provided. The materiality principle entails the quality of the report's accountability and not the number of indicators afforded (GRI, 2013).

Based on our review of the previous research on sustainability report assurance, we decided to apply the analysis framework built by Manetti and Becatti (2008) because it was inspired by the ISAE 3000 assurance standard, which is the major standard used by auditors and professionals. We conducted a qualitative content analysis, which was completed separately by both researchers. In the case of ambiguous findings deriving from the content analysis of each document, we reached a common result by applying triangulation to other related documents directly downloaded from the company website. The content analysis of the 189 documents allowed us to identify the following aspects:

- World Region (Kolk and Perego, 2010)

- Type of assurance provide (accountant, small consultancy, and engineering firm)
- Assurance provider (Big 4/Non Big 4) (Simnett *et al.*, 2009)
- Stakeholders panel provided or expert opinion
- Parts of report assured (Deegan *et al.*, 2006)
- Level of assurance (combination, moderate, reasonable, high, and not specified)
- Use of ISAE 3000 and/or AA1000 AS

We may add further aspects of the analysis, depending on the second phase of the content analysis, which, following the qualitative method proposed by Mayring (2000), is carried out in two times. The main idea is “to give explicit definitions, examples and coding rules for each deductive category, determining exactly under what circumstances a text passage can be coded with a category. Those category definitions are put together within a coding agenda” (p. 270). In the first step of the qualitative content analysis, we defined a wide set of open labels of the main aspects analyzed in the previous studies on sustainability report assurance. In the second phase of the content analysis, we merged and enriched the complete collection of labels found by the two researchers in the previous phase and identified definitive labels to use in the second round of the content analysis of the reports.

The first results showed that the majority of the reports GRI checked (53.45%) were not assured. According to Mock *et al.* (2009), the reason could be the costs related to this service. On the other hand, as underlined by De and Sen (2002), these costs could be recovered by the increased credibility of the company for stakeholders.

Simnett *et al.* (2009) found that factors of country and industry have a significant relation to the demand for assurance in voluntary reporting. Regarding the region, the analysis revealed that most of the assured reports were from European companies (49.21%). According to Simnett *et al.* 2009) in common-law countries, companies are shareholder-oriented, but in code-law countries, companies prefer a stakeholder-oriented approach. Regarding the factor of industry, several authors (Manetti and Becatti, 2008; Junior Mori *et al.*, 2014) demonstrated that because the mining, production, utilities and finance industries are more exposed to social risk, companies in these sectors pay increasing attention to the credibility of their reports and to assurance conducted by a third party. The majority of the sample analyzed (73.54%) was composed of A+ level assured reports. Regarding the type of assurance provided, 69.31% of the sample was supported by accountants. In particular, companies at the A+ level used the services of the Big 4 auditing firms. Moreover, the lack of a mandatory regulatory framework for the assurance of sustainability reporting has led to competition between auditors and consultants/advisers (Simnett *et al.*, 2009; Zorio *et al.*, 2013).

The findings of this study provide evidence of the current state of the assurance of sustainability reporting, bring the results of previous studies on this topic up to date, and show a unique picture of the practice of assurance after the financial crisis.

This study is the first step in a large research project that includes further analyses of the data collected. A later stage of this research will investigate the reasons that drive the compliance with assurance in sustainability reports from the points of view of both managers and accountants.

**Keywords:** *social assurance, global reporting initiative guidelines, materiality, assurance standards, sustainability reports*

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## **FINANCIAL MARKETS VOLATILITY AND INVESTORS' BEHAVIOUR: ANTECEDENTS OF SMALL INVESTORS' RISK TAKING PROFILES**

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### **ABSTRACT**

Risk and uncertainty play a role in almost every important economic decision. As a consequence, understanding individual attitudes towards risk is intimately linked to the goal of understanding and predicting economic behavior. Significant research has attempted to identify the determinants of risk tolerance. In the past years, numerous studies have attempted to identify the demographic factors that determine risk tolerance. The proposed study aims at examining, under the behavioural finance perspective, the drivers and antecedents of individual investors' risk-tolerance profiles for which little is known, so far. Research, up to date, examines investment risk tolerance mostly in terms of individuals' demographic characteristics. However, nothing is published on the effects of culture. This study will attempt to narrow this literature gap for the benefit of all parties concerned; academia, financial services firms and investors. Theoretical and practical implications of this research are also discussed.

### **INTRODUCTION**

Any investor is exposed to risk given that there is uncertainty about the financial outcome of the investment. In this light, investor risk tolerance can be seen as 'the extent to which an individual chooses to risk experiencing a less favourable financial outcome in the pursuit of a more favourable financial outcome' (Davey 2002), or the level of uncertainty that an investor is comfortable with in regard to investments. Whether measured for the purpose of self-assessment or for documentation of investment suitability, financial risk tolerance is assumed to be a fundamental issue underlying a number of financial decisions. Risk tolerance is an extremely complex phenomenon that is studied by disciplines such as economics, psychology, finance, and management science (Roszkowski, 1993). In this study, we use the definition from the finance literature. Risk is measured by the investment volatility. Risk tolerance refers to people's attitudes and behavior regarding financial risk (Roszkowski, 1993). Review of the literature in the area of the individual's investment risk attitude shows several underlying factors that determine the level of risk tolerance. Among the most important socioeconomic factors are gender, age, and wealth. It is amply documented that risk is a factor that shapes individuals' decisions, including financial and investment decisions, (Lipe, 1998; and Yang and

Qiu, 2005). Thus, understanding the factors that determine risk attitudes is imperative in understanding individuals' decisions. Determinants of risk attitudes of individual investors are of great interest in a growing area of finance known as behavioral finance. Behavioral finance focuses on the individual attributes, psychological or otherwise, that shape common financial and investment practices, (Ritter, 2003). Despite great interest in this area, not much research looks at the underlying factors that may lead to individual differences and play a significant role in determining people's financing and investment strategies in emerging markets. In this latter approach cultural theory has been important. This paper uses new data and new methodology in an attempt to address some of the challenging questions surrounding this concept.

## **DESIGN/APPROACH/METHODOLOGY**

In this research investigation a deductive approach is applied. A substantial body of knowledge in the research area of market volatility already exists. In addition, the decision for the development of a theoretical framework and hypotheses was informed by the literature review making the deductive approach possible in this study. Furthermore, all theories described in the theoretical framework will be compared to the empirical findings of the study. The research will adopt different methodological tools for its different aspects, combining quantitative with qualitative methods, as well as primary data and secondary data. That mixture of data is essential for the successful achievement of the objectives required for this research.

Secondary data from an extensive literature review in order to construct a solid theoretical base on which empirical research will be designed and helps to access the techniques used by other researchers, to formulate appropriate testable hypotheses and built the research instrument regarding: volatility of published market data, interconnections between market volatility and risk-tolerance of individuals, under the perspective of behavioural finance, culture and its consequences, with a special focus on risk-tolerance in general and investment risk-tolerance in particular, effects of demographics on risk-tolerance.

Examining the drivers and antecedents of the small investors' risk taking profiles considering factors such as demographic characteristics i.e. gender, age, occupation etc psychological and cultural values, will be done by collecting data that will measure the risk and cultural profiles and can statistically be analyzed to give valuable results on the relationship between respondents' demographic and cultural characteristics and respective cultural profiles. Looking for an appropriate cultural model for this research, Hofstede's cultural dimension model was chosen, which is the most used and well known when trying to understand cultural values. Hofstede's cultural dimensions theory is a framework for cross-cultural communication. It describes the effects of a society's culture on the values of its

members, and how these values relate to behavior, using a structure derived from factor analysis. The theory has been widely used in several fields as a paradigm for research, particularly in cross-cultural psychology and international management. Financial risk tolerance has been measured using several techniques. The techniques can be separated into measures based on observing risky behavior and measures using surveys to ask questions that gauge one's willingness to assume risk in given situations (Hanna, Gutter, & Fan 2001; Hanna & Lindamood, 2004). The interview is a necessary tool for understanding the many behavioural attributes that investors may exhibit. The development of a research instrument to measure investment risk tolerance and assess the effects of identified antecedents on the same will be use for data collection. The data collection will include descriptive statistics and correlations for they key variables, regression analysis both multiple and logistic, multivariable analysis, factor analysis and structural equations modeling and will be coded and analyzed by using statistical software programs.

## ORIGINALITY/VALUE/EXPECTED IMPLICATIONS

Since published research in this research stream is rather limited, there is significant opportunity for this proposed research project to provide innovative, theoretical and practical knowledge for considerably enhancing current understanding on the subject and initiating an investigative stream for future research. The importance of the research relates to its focus on the culture characteristics which are largely overlooked by existing research. Focusing on the understanding of small investors' attitudes towards financial risk will be beneficial for all parties concerned; academia, financial services firms and investors. It adds considerable value to academic knowledge on the fundamental discussion on small investors' risk taking profiles. Small investors' benefit of knowing their risk tolerance drivers will widen the array of their choices according to their needs and also it will also contribute a related framework to the existing literature. A number of possible future studies using the same experimental set up are apparent. Large randomized controlled trials could provide more definitive evidence. This research has thrown up many questions in need of further investigation. Various additional theoretical perspectives would also need attention on the basis of this research, in addition to widening the scope of the research.

**Keywords:** *financial market volatility, investors' behaviour, risk tolerance, behavioural finance, Cyprus stock market, demographic factors, culture*

# THE INFLUENCE OF ENTREPRENEURSHIP ORIENTATION, MARKET ORIENTATION AND CORPORATE SOCIAL RESPONSIBILITY TOWARDS TAKAFUL AGENCY'S BUSINESS PERFORMANCE IN MALAYSIA

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## ABSTRACT

The formation of Islamic financial institutions and system including takaful is a “back-to-religion” signal in Muslim world that believe Shariah must be followed in a Muslim’s daily life. It is evidenced with more new Islamic bank and takaful licenses are issued to show Malaysian government’s strong commitment to promote the country as an international Islamic financial hub in the Asian region, Although the Takaful industry has seen double-digit growth for the past few years, but it is reported that the industry still suffers from a lack of penetration in the market, and still performs at lackluster levels and large potential takaful market still remain untapped to its fullest. Technically, Takaful is different from conventional insurance because from Takaful concept point of view a company is not the ‘insurer’ insuring the participants but the participant is actually mutually insuring one another. Conceptually, Takaful is an arrangement by a group of people with common interests to guarantee or protect each other from certain defined misfortunes. There have been calls for Takaful industry to apply entrepreneurial orientation (EO), marketing orientation (MO) and societal concept (CSR) to make the industry more competitive. This study is to assist the Takaful operators and Takaful agencies in the country to identify ways to improve their business performance based on the concept of EO, MO and CSR and ultimately grow the Takaful industry in the future. Purposive sampling will be adopted where Takaful agency will become the respondents whose criterion meets the purpose of the study. PLS – SEM will be used to analyse the data and finding will be presented.

**Keyword:** *Takaful, Entrepreneurship Orientation, Market Orientation, Corporate Social Responsibility, Business Performance, Malaysia.*

## **THE IMPACT OF THE GREEN INVESTMENT ON INDUSTRY AND SOCIETY: NINE BENEFITS**

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### **ABSTRACT**

The green investment, as a concept, is quite new. Nevertheless the concept captures the investment is made in a company or in the public area that has the scope to reduce the carbon effect on the environment and/or to avoid the environment damage. However, after an introduction that summarizes different approaches of this concept, the paper is discussing how green investment is understood in Romania by the managers and the executives. Based on a question regarding the benefits of the green investments, as part of a larger survey conducted in 2013, this study is aiming to emphasize the impact of the green investments on different industries and on people in Romania. The organizations questioned are belonging to ten industries and the survey has covered half of the Romania's counties, getting a representative sample, although, the research has used a qualitative approach. The benefits of the green investments that have been emphasized in this research are: new markets; new jobs; economic stability; high return on investments; ethics in business; social responsibility and cooperation. In addition, two other benefits specifically to the people are underlined. The green investments are usually pushed on by six main drivers: renewable resources; clean energy, wastes management; IT; innovation and environment regulations. Furthermore, considering the above mentioned drivers of the green investments and the benefits, the paper is providing a conceptual model to provoke the organizations for consequently implementing the green investments, in order to reach out the benefits for the entire society, after all.

### **METHODOLOGY, FINDINGS AND DISCUSSION**

The methodology used in this study is a research based on a survey and in addition, the observation, the analysis and personal judgment. The question about the green investments' effects is part of a larger survey which has been conducted in 2013 on a representative sample of 400 companies located on 21 counties, out of which 374 answers were valid (5.17% error). The entire population considered is composed by around 500,000 companies. The interesting fact is that only 186 (49.73%) of the organizations are interested in the green investments, called here the sub-sample 1, and the other 50.27% are not investing in greening the organization, called here the sub-sample 2. In the entire sample, only 119 persons are in charge with the environment activities. The organizations questioned



are belonging to the following 10 industries: agriculture (including farms, forests and fisheries); constructions; transportation; research; processing industry; energy; commerce; tourism; banks and insurance; and other services. The variables are: new markets; new jobs; economic stability; high return on investments; ethics in business; social responsibility and cooperation. However, the data analysis (the total data and the structure by industry) refers to the sub-sample 1. Therefore, the total frequency and the frequencies by the industry for the seventh variables mentioned above are presented and discussed. The answers have been provided by the organizations' managers (69.4%) and the executives (30.6%), out of which 91.9% were males and 8.1% females. In brief, the main findings emphasize that the new markets (including new beneficiaries, clients and consumers) are representing 38.2% of the benefits, followed by the economic stability and high return on the investment (17.2% each), better ethics in business (10.8%), new jobs creation (8.1%), social responsibility (6.5%) and finally, the cooperation between the organizations and the organizations and the public sector (1.6%). The main descriptives have been calculated: the mean, the standard deviation, the variance, the kurtosis and the skewness. Furthermore, the Kolmogorov-Smirnov test for nonparametric variables has been applied. The distribution of the variables is Normal with the parameters: the mean (location=2.6183) and the standard deviation (scale=1.70832). The analysis by industry is highlighting the top 5 industries that are considering the green investment and its benefits in their strategy, i.e. the processing industry, followed by commerce, transportation, other services and constructions. A model of the green investments benefits is designed as being determined by several drivers, as the followings: the renewable resources; the clean energy; the wastes management; the use of IT; the innovation, as well as the environment regulations. Nevertheless, the impact of the green investments on the industry and on the people is summarized in the conceptual model proposed, considering other two benefits, apart of the survey. The society is the main beneficiary of the greening the industry by investments. A healthy and safety life and social wellbeing, could not be assure in a polluted environment and a dramatically climate changing, but in a green environment.

## CONCLUSIONS

About 50% of the Romanian organizations are interested in the green investments. Most of the organizations are considering that the main benefit of the green investment is the new markets (including new beneficiaries, consumers and clients), as the society tends to purchase green products and services. Even if the green investments are making new jobs and the benefit for the society is to be huge, only 8% of the organizations are considering this aspect as a benefit. The conceptual model proposed in the paper has a practical scope, i.e. to give a signal to all managers to invest green. This model ought to be adapted to the specific industry.

**Keywords:** *green investment, survey, industry, people, society, drivers, benefits*

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## THE IMPACT OF RELATIONAL DYNAMICS TOWARDS MALAYSIA'S HIGHER EDUCATION OFFERINGS IN CHINA

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### ABSTRACT

The intense competition in the global higher education sector calls for higher learning institutions to design winning strategies for attracting foreign students. As Malaysia positions itself as a regional education hub and strives to consummate this status, the nation's higher education institutions must be equipped with knowledge on how to attract quality foreign students. China is an important market for MHEIs, and students from China make up the largest single country group of students in Malaysia. For this trend to continue, MHEIs must continue to enhancing students' experiences through value in education and relationship with students and placement institutions/organizations they partner with to secure these students. Drawing on several theories (e.g. social exchange and relationship marketing theories), this study aims to examine the impact of relational dynamics (trust, competence, commitment, communication and pre-emptive conflict handling) on relational response and return (satisfaction, loyalty and return on relationship). Using a survey approach, 321 questionnaires were collected from Chinese's students in China, who are contemplating studying overseas. Findings show that commitment and communication are positively related to satisfaction and loyalty, while commitment, satisfaction and loyalty are positively related to return on relationship. Long term orientation (LTO) was found to moderate the relationship between relational dynamics and return on relationship. Overall, the study makes important theoretical and managerial contributions to the literature and higher learning institutions.

### INTRODUCTION

Ministry of Higher Education (MoHE) Malaysia target to enroll 200,000 of international student to Malaysia institution by 2020. Increasing in the number of enrolling international students in Malaysia contribute to RM600 billion to Malaysia's economy (Chi, 2011). Due to the encouragement of fierce entering of international students to pursue their education in Malaysia institution, there is necessary for the nation's higher education institutions to equip with marketing knowledge or strategic to attract quality international student by focusing and understand on their need. Sheth *et al.* (1991) identified few factors that in the research for international student decision to study in Malaysia institution

among them are epistemic, functional and emotional consumption values or a combination of these values. China is one of the biggest markets for Malaysia Higher Education Institutions (MHEIs) in internationalization of Malaysia higher education (MoHE, 2011). The critical issues faced by Malaysia higher education marketing with regard to China's student is attracting quality foreign students, providing quality education to student and increasing student's satisfaction together with loyalty (Arokiasamy, 2011). There are numerous studies investigate the relational dynamics practice in the relationship marketing (Sohail, 2012); nonetheless, research noted that cultural could influence the efficiency of relationship marketing and one of it was long term orientation (LTO) (Ryu *et al.*, 2007). LTO involves in Confucian dynamism where include hard work, face-saving in relationship, future-planning and values' perseverance, exists between among Chinese due to their life style practice and heritage (Wang *et al.*, 2008). This may create moderation effect to the RM strategy and incurred long duration. Using social exchange and relationship marketing theories, this study was designed with the purpose of uncovering the relationship between relational dynamics (trust, competence, commitment, communication and pre-emptive conflict handling) and relational response/return behaviours (satisfaction, loyalty and return on relationship) of relationship marketing in the education sector. Furthermore, this study sought to examine how long term orientation (Confucian dynamism) interacts with relational dynamic in influencing relationship return behaviours.

## METHODOLOGY

Using a convenience sampling survey, 400 questionnaires had been distributed to the students from the list of MHEIs sourcing students from China were derived from MOHE and Immigration services, which involve the student visa section. 321 responses were used for analysis into SPSS to examine the hypothesized relationships.

## FINDINGS AND CONTRIBUTIONS

The study found direct effects of commitment and communication on satisfaction and loyalty and direct effect of commitment, satisfaction and loyalty on return on relationship among international student in Malaysia. An important novel finding is the influence of long term orientation as moderating factor between the relationship of relational dynamics and return on relationship.

This study expands the application of the relational dynamics and return on relationship in the context of international students from China by including long term orientation as moderating variables. The findings beneficial for local Malaysia higher education either public higher education or private higher education in recruiting more quality students from foreign country. Handling international students' psychological and cross cultural adjustment during the period of pursuing

their studies in Malaysia, can furthering to tighten up the Malaysia with international student business relationship.

**Keywords:** *High education institutions, relational dynamics, return on relationship, China, Malaysia*

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## AUDIT QUALITY AND GOING-CONCERN OPINION: EMPIRICAL STUDIES DURING THE FINANCIAL CRISIS

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### ABSTRACT

#### PURPOSE AND THEORETICAL FRAMEWORK

The global financial crisis has increased the attention of regulators, standard setters, and investors to the auditor's assessment of and reporting on a company's ability to continue as a going-concern (Carson *et al.*, 2013). The empirical issue examined in this paper is the relation between the audit quality and the probability that a financially distressed company would receive a going-concern opinion. According to the previous literature, we adopt the DeAngelo's (1981) two-dimensional definition of audit quality as the probability that an auditor will both discover and report a breach in an accounting system. More in general, audit quality refers to the auditor's capabilities to individuate misstatements and errors in the client's financial documents, as well as the auditor's independence to report those misstatements and errors. Furthermore, the auditor should provide a professional opinion about the reliability of the information contained in the financial statements. Because audit quality is not directly observable, previous studies have used different signals as a proxy of audit quality, such as accrual-based measures and the auditor's propensity to issue a going-concern modified audit opinion. In this study, we adopt the auditor's propensity to issue a going-concern modified audit opinion as a proxy of audit quality. In particular, the audit opinion may provide stakeholders with useful information that could reduce agency costs. However, it is difficult to associate different types of audit opinion with different levels of audit quality, because every audit's client has a unique history. Several authors presume that a lower grade of audit quality is represented by an increase in the likelihood that an auditor issues a going-concern opinion when a company subsequently goes bankrupt (e.g. Knechel and Vanstraelen, 2007). Previous studies have considered different proxies to investigate the economic trade-offs facing the auditor during the decision-making process regarding the issuance of a going-concern opinion. Krishnan and Krishnan (1996) demonstrated that the audit opinion decision is influenced by the client size and the auditor litigation risk. DeFond *et al.* (2002) indicate that loss of reputation and litigation costs compromise the auditor's independence. Vanstraelen (2002) reaches the same conclusions relating to the levels of audit fees and the loss of audit clients in the Belgian context. In Spain, Ruiz-Barbadillo *et al.* (2004) demonstrate that both the entity's financial problems and the

auditor's level of independence affect the probability that a financially distressed entity would receive a going-concern opinion.

In Italy (the context of the present research), the Civil Code requires the ability of an entity to continue as a going concern (art. 2423-*bis* c.c.) that it is defined as *the going-concern assumption*<sup>1</sup>. The going-concern assumption is a fundamental principle in the preparation of financial statements. Consequently, the problem of verifying the existence of the assumption of going concern is relevant for the auditors' activities. In this regard, the ISA No. 570 provides guidelines about the auditor's verification for the correctness of the going-concern assumption used as a basis for the preparation of financial statements. This going-concern verification is fundamental for the auditor's opinion. In particular, the auditor's responsibilities are to obtain appropriate audit evidence regarding the appropriateness of management's use of the going-concern assumption in the preparation of the financial statement and to conclude whether material uncertainty exists in terms of the entity's ability to continue as a going concern (Provasi and Riva, 2014).

## METHODOLOGY

In this research, we analyze 305 listed entities to investigate the relation between audit quality and the probability for a financially distressed company to receive a going-concern opinion between 2007 and 2011 in Italy. We chose the Italian context to fill the gap in worldwide studies of this issue. The period selected reveals the effects of financial crisis. Following Ruiz-Barbadillo *et al.* (2004), this study investigates the auditor's decision-making process in the presence of going-concern uncertainties. The going-concern decision is divided into two phases. The first phase concerns the identification of an entity with a potential going-concern problem. The second phase concerns the determination of whether a company with a going-concern problem should receive a going-concern opinion. Consequently, the auditor's decision-making process will depend on the auditor's competence in the first phase and on the auditor's independence in the second phase (DeAngelo, 1981). According to the literature (Vanstraelen, 2002, Geiger and Raghunandan, 2002, Ruiz-Barbadillo *et al.*, 2004, Geiger *et al.*, 2014), we identify an entity as financially stressed if it exhibits one or more of the following features in the financial statements under audit: 1) negative working capital, 2) negative retained earnings or 3) bottom-line loss. In addition, consistent with Reynolds and Francis (2001) and Ruiz-Barbadillo *et al.* (2004), we have examined the subsequent fiscal year financial statement in order to identify the existence of relevant sales of assets or the issuance of new debt or equity, because such mitigating

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<sup>1</sup> In Italy, the going-concern assumptions are contained in: 1) Civil Code, Article 2423-bis; 2) No OIC. 5 - Financial Statements for company in liquidation; 3) No OIC. 11 - Financial Statements, objectives and postulates; 3) IAS 1 - Presentation of Financial Statements; 4) Auditing Standard no. 570 - Going Concern; 5) The Bank of Italy / Consob / Isvap. 2 of 6 February 2009; and 6) Consob Communication no. 9012559 (6 February 2009).

factors could influence the auditor's decision-making process. Entities that have one or both mitigating factors are excluded from the sample. In our research, we identify 305 potentially financially distressed entities. Of this sample, 28 entities received a going-concern opinion.

In order to investigate the relation between audit quality and the auditor's opinion for financial distressed entities, we use the following logistic regression model:

$$GOING-CONCERN = F(CLIENTSIZE, AUDITORSIZE, RECEIVABLE, INVENTORY)$$

CLIENTSIZE is a proxy of the expected cost of possible client loss if the auditor issues a qualified opinion. It is represented by the ratio of clients' assets to total clients' assets of the auditor. AUDITORSIZE is a proxy used to capture the reputation effect. It is measured by the ratio of sales audited by each auditor to sales audited in the entire audit market. RECEIVABLE and INVENTORY are proxies for potential losses from litigation. RECEIVABLE is calculated as receivables to total assets, and INVENTORY is the ratio of inventories to total assets.

## FINDINGS AND IMPLICATIONS

Table 1 describes the univariate analysis of the explanatory variables classified according to the existence of going-concern opinion (GC) or lack thereof (NO GC).

	Univariate Analysis					
	Mean		Median		Standard Deviation	
Variables	NO GC	GC	NO GC	GC	NO GC	GC
CLIENTSIZE	0.539	0.210	0.249	0.130	0.881	0.236
AUDITORSIZE	0.204	0.164	0.233	0.198	0.071	0.096
RECEIVABLE	0.245	0.221	0.215	0.170	0.163	0.159
INVENTORY	0.041	0.058	0.000	0.011	0.079	0.110

Table 2. *Univariate analysis of the proxies*

The findings show that there are relevant differences between financially distressed entities that received a going-concern opinion and those that did not. In more detail, the variables CLIENTSIZE and AUDITORSIZE, which describe the economic trade-off related to the expected cost of possible client loss and reputation costs, underline a clear difference between the two groups. Regarding the variables RECEIVABLE and INVENTORY, which measure the litigation risk, the findings show that the entities with going-concern opinions have slightly higher value than those without going-concern opinions.

Providing an in-depth analysis on the relation between audit quality and the issuance of a going-concern opinion during the financial crisis, our research should be useful to regulators, practitioners, academics and standard setters, as they evaluate auditor performance in the Italian context.



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# THE IMPACT OF THE ECONOMIC CRISIS ON HIGHER EDUCATION IN CYPRUS: MARKETING SERVICES TO SATISFY INTERNAL CUSTOMERS AT THE UNIVERSITY OF NICOSIA

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## ABSTRACT

The paper investigates the decisions and actions implemented within the University of Nicosia, a private tuition-paying university, following effects of the economic crisis in its effort to view and treat students as “internal customers”. It examines the university’s efforts to instill a more “student centered” culture aimed at addressing and satisfying the needs of its students as these are especially shaped by the current economic crisis by using primary data provided by the student support office of the university. Although universities were somewhat lucky, in being granted partial exemption from the “haircut”, they still lost millions of euros, out of which running expenses as well as salaries of faculty and staff is paid. The university has to cope with the loss on its deposits, liquidity problems and an expected decrease in future revenues and cash collections. The management of the university studied has recognized the need for instilling a strong “customer orientation” in its internal market focusing on students’ so as to increase student retention and maintain the graduation rates. A number of initiatives and activities have been launched within the university under the umbrella of student/customer orientation.

**Keywords:** *internal customer (student) orientation, Internal Marketing, economic crisis, Higher Education Institutions, Cyprus.*

## **INTERNAL MARKETING: BUILDING A STRONGER AND MORE REPUTABLE HEALTH AND FITNESS CENTRE IN CYPRUS**

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### **ABSTRACT**

The aim of this paper is to discuss the theoretical underpinnings and managerial implications of a research study that was carried out in one of the biggest Health and Fitness Centers in Cyprus, the Sana Hiltonia Health and Fitness Center situated in Nicosia. The study's primary aim was to shed light onto the underlying ideas and practice of Internal Marketing (IM) within the specific organization as well as explore the rationale for its adoption and practice through the perceptions, attitudes and experiences of the company's management, employees and external customers.

Berry et al. (1976) first introduced the IM term as a solution to the problem of consistently delivering high service quality. According to Ahmed and Rafiq (2004) over the next thirty years or so the concept of IM has gone through various phases of development and evolution founded on three notions namely: employee motivation and satisfaction (Berry 1981), customer orientation (Gronroos 1981), as well as strategy implementation and change management (Winter 1985). Despite its popularity and growing literature IM failed to be widely adopted by organizations. This is largely due to the lack of a single unified definition of what IM is. The term 'IM' was firstly defined in Berry's (1981) article according to which: "IM is about viewing employees as internal customers, viewing jobs as internal products that satisfy the needs and wants of these internal customers while addressing the objectives of the organization." IM is the philosophy of treating employees as customers and it is the strategy of shaping job-products to fit human needs." Gronroos (1985, p. 42) extended the notion of IM to a method of motivating personnel towards customer-consciousness and sales mindedness to include the use of marketing-like activities in this pursue: "...holding that an organisation's internal market of employees can be influenced most effectively and hence motivated to customer-consciousness, market orientation and sales-mindedness by a marketing-like internal approach and by applying marketing-like activities internally." Eventually, IM began to be recognized as a method for managing employees towards the achievement of organizational goals.

The Cyprus business sector depends predominately on the production of services ranging for example from banking, hospitality and tourism, higher education, auditing, legal services, health and fitness. The Sana Hiltonia Health and Fitness centre embarked on an attempt to implement IM in an effort to gain a competitive advantage by strengthening service quality and customer satisfaction. The researchers employed a single-case study approach that concentrated on one single service

organization. The organization studied has a strong corporate reputation and a large strong market share in the specific industry. The case study research approach was adopted in order to help understand the practice of IM through exploring the perceptions and experiences of the manager and employees working in various positions within the organization. Since the head office had adopted IM in order to improve service quality and customer satisfaction there was a need to explore the IM perceptions and experiences of both internal and external customers. Primary data was collected through the use of personal face-to-face interviews with the Sana Hiltonia manager and eleven employees. For this reason the study was primarily qualitative in nature integrating both qualitative and quantitative data. There was also a need to explore the perception of external customers in relation to the quality of service and customer focus. A total of 220 questionnaires were distributed to external customers in order to investigate the impact of IM on service quality and customer satisfaction. From these, 150 were completed and returned.

The study reveals that although the centre's manager perceives IM as a strategic process that aligns, motivates and empowers the company's employees towards the achievement of organizational goals the company has failed to adopt and implement a strategically formal IM approach. The tools used to implement the IM ideas are not strategically integrated. There is a lack of effective coordination and management of the IM initiative which demonstrates that in the organization studied IM is simply an ad hoc tactic that encompasses various activities some of which are formally planned and assessed. These are the non-monetary rewards and personal development programs. This approach results in confusion and inconsistencies in the way IM is understood and practiced by the employees and hence jeopardizing its effective implementation.

The study revealed that there is a strong recognition of the importance of employees by both the centre's manager and external customers. Happy and motivated employees are seen as a prerequisite for achieving superior service quality and customer orientation. The employees are also perceived as the organisation's source of gaining competitive advantage and achieving differentiation in a sector which is characterized by intense competition and homogeneity.

The findings that emerged from analyzing the data received from the centre's external customers revealed that the external customers feel that the employees' commitment and dedication towards achieving service excellence has the potential to transcend internal and external service encounters and create a culture that nourishes service excellence and leads to customer retention and loyalty. However, the management has not yet found a way to design, develop, implement and manage the IM effectively and hence, has not yet achieved the goals that motivated the organization to adopt IM in the first place.

**Keywords:** *Internal Marketing, Health and Fitness, Service Quality, Customer Orientation, Cyprus*

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## INTERNAL MARKETING: IGNITING THE EMPLOYEES' FIRE

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### ABSTRACT

This paper responds to the lack of research in the area of Internal Marketing (IM) and its practice within the business sector by investigating the perceptions held by senior level managers regarding the IM underlying ideas and implementation within the International Business Centre (IBC) of a leading bank in Cyprus (Bank A), whose name cannot be revealed for confidentiality reasons. At the time the study was contacted, the bank's IBC was the leader in the Cyprus banking industry in terms of the number of customers, customer service and information technology. The study sought to identify the rationale behind the adoption and implementation of IM and the extent to which the specific IM implementation strategy was successful.

There is a lack of knowledge and understanding in the existent IM literature in relation to whether the IM concept is practised within the business sector and the way in which it is practised. Internal Marketing refers to the application of marketing management knowledge which was originally developed for external marketing – on the 'internal market', that is the employees. At the heart of the concept is the idea of viewing and treating employees as 'internal customers'. The concept has the potential to get employees in tune with existing conditions and procedures as well as with changes. There is evidence to suggest that internal marketing is any form of marketing within an organisation which focuses staff attention on the internal activities that need to be changed in order to enhance external market place performance. By treating employees as customers, the employees' attitudes will change, employees will become more motivated and service minded which has the potential to lead to better service quality and a competitive advantage in the market place.

The study adopted the case study research methodology to investigate the extent to which a formal internal marketing strategy was been implemented, managed and monitored throughout the three regional International Business Centres (IBCs) of the bank studied. The researchers used triangulation by retrieving primary data through observation and personal face-to-face interviews with employees and managers working at different levels within the bank's regional IBCs.

The focus of the study was an in-depth investigation and cross-examination of the perceptions, feelings, attitudes and experiences with IM provided by different organisational members working at different managerial levels to establish whether there was a perceptual gap and inconsistencies in the

way IM was conceptualised and practiced. The researchers interviewed: the director of the IBB, five regional IBCs managers, eight middle managers, and eleven lower level employees.

The study revealed that the managers' interviewed had no clear view of the IM concept and even though they recognised some of the key IM ideas it was clear that the bank had not adopted an IM approach, one which was formally and strategically implemented across divisions. The managers interviewed related IM with external customer service and external customer satisfaction failing to recognise the importance of achieving employee satisfaction as a prerequisite for external customer satisfaction. A number of discrepancies emerged revealing that the current IM approach appears to be a "facade" hiding away an aggressive approach to 'sell' the bank's corporate brand and organizational goals and strategies (such as customer focus and orientation) to its employees. It was clear that the specific organization had adopted IM as a way to manipulate its workforce towards the achievement of organizational strategies by pretending that it cares for the welfare of its employees. The lower level employees claimed that the bank did not implement IM which highlights that the current implementation approach is ineffective. The majority of the lower level employees consider that IM is implemented in order to "show off" and pretend that the bank has a caring face towards its employees.

The rationale behind the adoption of IM within the IBCs was primarily as a change mechanism and the minimization of the employees' resistance to change. The bank had embarked on a series of internal changes and IM was seen as a strategy for overcoming the employees' resistance, fear and scepticism towards change. The study also revealed that IM was adopted in order to demonstrate that the bank (management) cares for its employees as a way to motivate them to work harder towards the achievement of organizational goals such as the achievement of customer satisfaction and sales mindedness.

The study revealed that the IM implementation approach was considered to be successful by the branch managers. However the perception held by the lower level employees and by the majority of the middle-level managers was that the IM practice was unsuccessful. This finding demonstrates that there is a perceptual gap between senior and lower level employees. This gap can lead to conflicts and frictions not only within the units/branches themselves but between different departments.

The study's findings have implications not only for other organisations in the banking sector but also for the wider services sector in Cyprus and Europe. Employees are the backbone of the organisation. They are 'breathing' and 'living' the values of the organisation. They experience the company's organisational culture on a daily basis. They are also interacting with other organisational members. The way they are viewed and treated has a direct impact on their attitudes and behaviour towards the external customers. Any initiative or strategy adopted at a headquarter level must be carefully

implemented and monitored throughout the organisational units/departments in order to ensure its successful implementation. Failure to do so can result in employee dissatisfaction, frustration, and the whole process can be counter-productive. Although the bank studied 'embraced' internal marketing at a headquarter level as a change mechanism it failed to effectively monitor its implementation resulting in confusion, dissatisfaction and internal conflicts.

**Keywords:** *Internal Marketing, Customer Orientation, Banking Sector, Cyprus*



## THE QUEST FOR NON-TECHNOLOGICAL INNOVATION IN CREATIVE INDUSTRIES

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### ABSTRACT

Non-technological innovation is an essential asset for firms in the creative industries to survive and succeed in an increasingly competitive market. However, research on disruptive non-technological innovation is insufficiently documented, leading to questions about the role and relationship between the main non-technological innovations: business model innovation (BMI) and management innovation (MI). Greater understanding of the advantages of each innovation positioning and their significance for innovation performance is critical for cultural industries where unpredictability and the accelerating pace of change pervade the innovation decisions. Drawing on four exemplary cases of archaeological firms in Spain, this paper explores the innovation process dynamics found in such cases. The study argues that, in order to cope with the changing dynamics of their activity, creative firms need disruptive business model innovation and, at the same time, a portfolio of complementary organizational innovation initiatives.

Innovation is essential for entrepreneurial firms in creative industries where a complex institutional environment and limited management resources, exacerbated by the reliance on highly skilled human capital, drives increasing commercial competition within the industry. The international financial crisis between 2007-2008 and further economic downturn, has intensified their search for innovative solutions to shrinking business opportunities. Recent studies on innovation in creative industries have shown certain peculiarities, particularly their reliance on non-technological sources of innovation (Franklin et al., 2013). In the event of convoluted economic conditions, the pioneer firm attempts innovative business model solutions (Foss and Stieglitz, 2014). That source of innovation tends to be disruptive and, in creative business, first-mover status is a precarious position on which to rest business practices and model. This is the situation confronting most entrepreneurial firms in creative industries when determining whether to pursue a disruptive innovation (McKelvie and Wiklund, 2008).

In his work on disruptive innovation, Christensen (1997) asserts that, for pioneering firms, disruptive business model solutions may provide a competitive advantage in the fast-paced competitive challenges of dynamic sectors. However, as we contend in this work, the success of business model innovations might require further innovation solutions in the form of new management practices (Mol and Birkinshaw, 2009; Preston et al., 2009). First movers might be disadvantaged by their lack of

experience to foresee, giving a chance to second movers, who may have a more systematic, strategic approach toward innovation. This does not imply that some first movers often have a clear advantage over followers, but as Schnaars (1994) recognizes, innovation studies need to acknowledge the huge amount of uncertainty that innovative activity brings in. This is even more critical in a changing economic landscape, where firms are forced to constantly reposition their strategy and offer new services.

The study of organizational innovativeness in creative industries requires systematic research into the dynamics associated with the determinants of innovation adoption. The newness of certain innovations may be detrimental to early adopters. Alternatively, for first-movers and early-movers of non-technological innovations, business model innovations allow for faster-growing, profitable innovation success. This is a remarkable quest for small firms that the literature has not addressed yet. Specifically, to what extent does the level of non-technological innovation disruption contribute to innovation success?

To address this research question, this study explores the success path taken by firms in the creative industries in terms of introducing disruptive business model innovations. We do so by drawing on commercial archaeological service in Spain and by qualitatively analyzing four such firms. Commercial archaeology represents a relatively modern business activity, which took off as a result of favorable legal requirements on heritage protection and an endless service demand from the construction activity occurred during this period had an extraordinary development at the beginning of the 21st century. This context strengthened the creation of numerous archaeological firms. However, the economic and financial downturn that began in mid-2007 severely affected this business activity, 42% of archaeological firms wiped out in four years and survivor companies were forced to innovate in order to adapt to the changing environment.

Our study of four exemplary cases traces the innovation pathways taken by these firms. We observed that to cope with failure and an unstable market environment, these four archaeological firms were prone to adopt new business models in order to redefine their activities and to explore new market venues. During the first few years of economic slowdown archaeological firms brought to life new business models, even if assuming high risk with little guarantee of success. Once pioneers introduced new business models as a way to stay abreast of slumbering market opportunities and large competition among competing firms, other archaeological firms attempted first-movers' innovations. However, our findings show these next-to-first movers not only adopted new business models but they also attempted systematic management innovation initiatives. That was deemed by interviewees at these firms as way to secure successful implementation of innovations in the business structure and to maintain these innovations over an extended period. In conclusion, our preliminary results show that

disruptive non-technological innovation strategies help entrepreneurial firms in creative industries to cope with changes in the activity.

**Keywords:** *Disruptive innovation; management innovation; business model innovation; first-mover; follower, creative industries; adaptation;*

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## CULTURAL HERITAGE VALORIZATION PROCESSES AS ENABLERS OF SUSTAINABLE TOURISM IN ECUADOR

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### ABSTRACT

Cultural heritage protection, management and valorization are essential tools for sustainability and valuation in Latin America countries. An interesting case is the *National Plan for Good Living* (2013-2017) advanced by the Ecuadorian government. This paper presents a work-in-progress research on the identification and characterization of Ecuadorian cultural heritage valorization model as it relates to cultural tourism planning and development, entrepreneurship and empowerment of indigenous communities. Research on tourism, entrepreneurship and local communities is considered essential in the formulation of a national policy and strategy. Ecuador exemplifies an ideal research context due to its strategic resources—natural and cultural diversity, and its economic and social characteristics and quandaries. Empirical evidence of different heritage valorization processes is presented through four case studies that exemplify integrative programs of cultural heritage protection, management and valorization.

Cultural heritage protection and valorization is a cornerstone of the current Ecuadorian political model as is reflected in the *National Plan for Good Living* (2013-2017). This paper presents work-in-progress research on the identification and characterization of the Ecuadorian cultural heritage valorization model in relation to cultural tourism development, local entrepreneurship and empowerment of indigenous communities. This topic is considered critical in the formulation of a national policy and local strategies. Ecuador illustrates an excellent research context due to its strategic natural and cultural resources, its economic and social characteristics and dilemmas.

The overcoming accumulation model based on extractive industries has become a topical debate on the various methods of development in Ecuador. Historically, Ecuador has been characterized by a succession of ups and downs in exports of the country's main products: cocoa, banana, oil, flowers and fruit. This analysis indicates that economic growth in Ecuador has been characterized by an extractive model, based on the consumption and export of natural resources (Villalba, 2013). The *Good Living* approach opens new perspectives and offers an alternative paradigm to the previous development model. From this point of view, discussions of the *Good Living* and its application in government policy are particularly relevant. Specifically, the relationship between socioeconomic uses of cultural heritage and tourism development offers an interesting area of research (Iorgulescu et al., 2011; Poria and Ashworth, 2009; Aas et al., 2005).

Tourism is a relatively new economic activity in Ecuador and has grown exponentially in a short period of time, being the third most important economic activity in the country, after oil extraction and production of banana, attracting about 700,000 visitors per year (Ruiz-Ballesteros, 2011). Cultural tourism and its impact on local communities is a hot topic in academics and is currently being explored in the Ecuadorian context (Ballesteros and Carrion, 2007; Estrella Duran, 2007; Korovkin, 2001; Gould, 1999). It is therefore a priority to theorize about the uses of heritage valorization models in relation to sustainable tourism development.

The recent empowerment of communities in Ecuador coincides with the rise of indigenous movements and their political role since the final decades of the twentieth century (Estrella Duran, 2007). The indigenous communities are integrated into the political and administrative organization of the state (Organization and Management Act of Municipalities 2004) and the Constitution of 2008 recognizes indigenous rights. These communities are often in charge of guarding the community property (land) and have their own decision-making system. In this context, rural and indigenous communities have begun to consider participating in tourism activities, sometimes through community tourism formulas and developing entrepreneurship initiatives. Currently, about 60 rural and indigenous communities offer community tourism activities in Ecuador. It is estimated that these activities benefit some 15,000 people directly and indirectly (Ruiz-Ballesteros, 2011). Community tourism becomes a vehicle to meet the needs of indigenous communities and a way to achieve self-management of their lands and resources (Gould, 1999).

In this sense, to what extent has Ecuador developed heritage valorization processes under sustainable parameters with the environment and local communities?

This research is characterized by its exploratory nature. Empirical evidence is presented through four in-depth case studies: Baños, Cuenca, Galapagos and Ishkay Yaku as representative locations of the Ecuadorian natural and cultural diversity (mountains, city, coast and Amazon). Through these illustrative cases, the relationship between cultural heritage valorization and tourist impact is explored by means of a variety of data sources, using semi structured interviews, focus groups and participant observation.

This multimethod field study indicates that cultural heritage valorization processes can serve as an important enabler of tourism activities. It also shows that tourism planning, political involvement and community participation may facilitate productive capabilities, local entrepreneurship and the empowerment of communities involved by providing sustainable tourist activities.

**Keywords:** *Sustainability; valorization models; cultural heritage; Ecuador; tourism, entrepreneurship, indigenous communities*

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## FASHION AND FACE CONSCIOUSNESS – EVIDENCE FROM A CROSS-CULTURAL STUDY

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### ABSTRACT

Fashion and brand preferred consumption always attracted special attention of academic researchers (e.g. Liao & Wang, 2009; Pentecost & Andrews, 2010; Pookulangara & Shephard, 2013), some even claiming brand consciousness to be the most influential factor on consumption (Zhang & Kim, 2013). Although its definition may be universal (the extent of an individual's interest in and attention to the latest fashion trends, having a style up to date with what's new on the market; Manrai et al., 2001), there are reported market differences in fashion consciousness between developed and less developed countries (Parker, Hermans & Schaefer, 2004). For example, consumers in Eastern Europe have always been interested in Western style, thus their exposure to Western brands and advertising affected consumer values to change from former collectivist to individualistic values (Manrai et al., 2001). The key to explain these cultural differences in behavioral sciences holds in culture-specific values, mianzi or face in particular (Zhang, Doom & Leeftang, 2014).

People in Eastern societies are under constant pressure to live up to expectations of others in order to "save face" (Parker, Hermans & Schaefer, 2004). As "face" refers to "a sense of favourable social self-worth that a person wants to maintain in relational and network contexts" (Zhang, Doom & Leeftang, 2014), people with high face consciousness will care more about their self-image and others' appraisal (Liao & Wang, 2009). Thus, collectivistic Eastern consumers with a greater face consciousness (desire to enhance, maintain and avoid losing face in relation to others in social activities) may place more emphasis on publicly visible possession than Western consumers do (Bao, Zhou & Su, 2003). In fact, novelty and fashion conscious consumers are not just motivated by a concern for the avoidance of losing face (Parker, Hermans & Schaefer, 2004), but are actually gaining face from being trendy (Bao, Zhou & Su, 2003; Liao & Wang, 2009). On one hand, Eastern consumers use luxury fashion goods not just to show their status or boost their self-recognition, but are also an essential symbol of group identity, determining wearer's social position and esteem (Zhang & Kim, 2013). On the other hand, Westerners' fashion consciousness is driven by their need for uniqueness (Bian & Forsythe, 2012; Ko & Megahee, 2012) and authentic life, expressing their inner values and tastes through affinity for highly personalized products (Parker, Hermans & Schaefer, 2004). Here, we observe the rise of material values

in Western societies and face consciousness in the Eastern societies. Materialism and face were found to influence brand consciousness differently, as they are basically two different constructs. Materialism being rooted in the modern economic lifestyle is based on individualistic cultures focusing on hedonic meanings mainly related to consumer behavior; while face existed since ancient times in collectivist cultures representing a social concept of the self, addressing interpersonal significance and being related to almost all respects of life (Liao & Wang, 2009). In sum, the concepts of face and fashion consciousness have a different meaning across cultures and may consequently differently impact consumer behavior.

A call for a good measurement instrument for the face consciousness concept (Bao, Zhou & Su, 2003), led us to expand the set of proposed cultural dimensions elaborated in the previous literature to independence, power and social inequality as cultural-specific antecedents (these were selected as they are social norms highly rooted in the culture) to face consciousness. We believe that fashion is a good proxy of culture. Thus, our goal is to propose a new model, evaluating the interconnectivity between face consciousness, interpersonal influence, fashion consciousness and brand consciousness. We claim that fashion explains the way we act, behave and communicate. Furthermore, fashion is determined by our cultural orientations and is strengthened by how we communicate through others and our brands. In sum, the idea of this paper is to enhance the understanding of consumer decision behavior with relation to face and fashion consciousness across cultural contexts.

This is a multi-country study. In total we received 650 number of responses and 525 observations were usable. The final data contain information from individuals as follows: 193 Slovenian, 177 Turkish and 155 Israel. Countries were selected in the sample based on several criteria: a) they belong to Eastern group of countries, b) are at different level of development, c) differ in national cultural values. Israel was selected as it is the most developed country in the Middle-East (Eurostat, 2014) and culturally most similar among Eastern countries to the West, particularly to USA (Hofstede, 2001). Turkey was selected as it is currently one of the fastest growing economies in the world, and at the same time at the cross-road between Europe and Asia, where Western values are mixed with Eastern values. Finally, Slovenia was selected as one of the typical representatives of Eastern Europe, being at the average development of European Union countries (Čater & Čater, 2011). Furthermore, sample has an average age of 44.64 years in Slovenia, 40.08 in Turkey and 35.68 in Israel. All samples are relatively equal across gender and biased towards married couples. A structured questionnaire with eight established scales and 25 items was used. Since these scales were developed in English, back-translation was used to ensure equivalence of items. The same approach was used in all three countries.

Structural equation modeling (SEM) was used to establish if a theoretical model fits the observed data. Confirmatory factor analysis (CFA) followed by a structural model is a popular approach and its



estimated  $\chi^2$  and normed- $\chi^2$  test how well the model fits the data (Anderson and Gerbing, 1988). A country-stacked model with no cross-country constraints as an initial baseline model was used here (Bagozzi & Yi, 2012). These initial goodness-of-fit statistics were acceptable (CFI = .96, RMSEA = .028, SRMR = .052, and  $\chi^2 = 1052.332$  [df = 741;  $p \leq .000$ ,  $\chi^2/\text{df}=1.420$ ]). When testing the baseline model, the data supported an eight-construct model in all three countries, indicating that they exhibit the same factor structure ( $\chi^2 = 1052.332$  [df = 741;  $p \leq .000$ ,  $\chi^2/\text{df}=1.420$ ]; CFI = .96, RMSEA = .028 and SRMR = .052). Furthermore, independence and its expected positive relationship on face were not supported in any of the three countries. Face consciousness was proven to have a significant positive relationship on fashion consciousness to the highest extend in Turkey and on brand consciousness in Israel.

In sum, this study has provided a new conceptual model for testing fashion and face consciousness in cross-cultural context. In line with these goals, it provided also a first test of several scales' reliability and validity. Second, finding that the role of face consciousness in fashion and brand preferred consumer purchases was mostly supported in three different countries (Slovenia, Israel and Turkey) strengthens the argument for the generalizability of the face-fashion consciousness model. Third, this paper tested an integrative model for face consciousness, which provided some support for the roles of several antecedents and consequences proposed by Bruner and Kumar (2007) as important topics for further research. Finally, this paper posits face and fashion consciousness under the loop of different cultural communication antecedents, offering important implications for cross-cultural research.

**Keywords:** *face consciousness, fashion consciousness, brand consciousness, interpersonal influence, independence, power, social inequality, cross-cultural study.*

## LOOSE- OR TIGHT- COUPLING? EXPLORING THE INTERPLAY BETWEEN DECOUPLING, SLACK AND RESILIENCE IN PUBLIC ORGANIZATIONS

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### ABSTRACT

This paper contributes to this special track by critically exploring a major (taken for granted) assumption in today's strategic debates on public organizations such as universities, i.e. the prevalent notion that, in today's complex higher education environment, 'fit for purpose' is a function of the degree through which strategies, structures, activities and academic norms and values ought to be tightly coupled with one another, and the idea that this tight coupling is to enhance universities' abilities to respond to an increasing complex set of external demands and expectations, including but not limited to their generative and/or developmental role at the national and regional levels. There is a burgeoning interest on the notion of *resilience* within the organizational science literature. Similarly, neo-institutional scholars have recently re-discovered the relatively unexplored domain of *decoupling* both within and across organizational boundaries, a topic going back to the seminal work of Karl Weick (Weick 1976). Further, management theorists have long argued for the criticality of organizational *slack* on firms' performance, innovation, the sustainability of competitive advantages, etc. The paper explores the interplay between these three relatively distinct yet not necessarily dissociated organizational dimensions – *decoupling*, *slack* and *resilience* – within the context of an external, global interconnected environment characterized by volatility, financial austerity and increasing competitiveness on the one hand, and the gradual erosion on the levels of trust and legitimacy enjoyed by governments in general and publicly- run and funded organizations in particular.

Following Weick (1976) and others, we have chosen to focus on public educational institutions (i.e. universities) as the object of analysis. The rationale for this choice is twofold. First, universities, the world over, are facing increasing pressures to respond, more efficiently, to a wide range of societal demands and stakeholder groups; from governments to industry to local communities. Second, professionalization and managerialism have led to the rise of strategic science regimes in higher education, manifested in an attempt – by the steering core of universities (central and unit levels) – to more tightly couple internal structures and activities as a means of responding to the manifold challenges posed by drastic changes in their technical (operational) and institutional (regulative) environments. One of the ways in which universities have attempted to cope with these new set of

environmental demands lies on *de-institutionalizing* traditional structures and practices (e.g. collegial decision making) and, in turn, replacing them - *re-institutionalization* - with features associated with more entrepreneurial (i.e. 'fit for survival') models, characterized by a tighter internal coupling amongst strategic aims, internal structures, primary activities and behavioral postures.

Following the notion, and solid empirical evidence that *requisite variety* which suggests that the internal diversity of an organization (in terms of its information, operations, and mental models) should match the external variety of the environment for effective adaptation (Gray 2000; Popadiuk and Choo 2006), our main argument in this paper is that ongoing efforts to enhance tight-coupling across university structures, functions and activities have the potential for *reducing* (rather than enhancing) adaptive capacity at the organizational level. This is due to the fact that decoupling (e.g. different academic groups with similar interests doing different things) has the potential to generate *organizational slack* – defined here as internal repositories of knowledge, solutions, technologies, and world views - which, when/if “managed” in a proper manner, can become a valid strategic asset for universities whilst coping with drastic environmental change and/or while facing serious performance and/or legitimacy- related crisis (Geiger and Makri 2006; Huang and Chen 2010). Moreover, in this paper we contend (and empirically demonstrate) that the levels of organizational slack within a given university are directly associated with the degree of resilience to external events and stakeholders' demands, e.g. increasing calls for a more direct contribution of university groups and primary activities to local, regional and national socio-economic needs and circumstances.

The paper is organized as follows. After presenting the three theoretical constructs and the relationships between them, we review the literature on organizational change and adaptation in higher education, providing evidence of a general move towards a tighter coupling of strategies, structures, activities, and behavioral postures. We then move on to suggest an integrated (novel) conceptual model depicting the relationship amongst the three constructs or variables and, consequently, the potential and realized (synergic) effects on internal university dynamics on the one hand and processes of adaptability to the external environment on the other. Despite its strong conceptual focus, the paper has immediate consequences for the ongoing discourses, strategic postures and managerial practices surrounding the modernization of (European) higher education.

**Keywords:** *academic leadership, Nordic countries, female leaders, gender, higher education*

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## PRIMUS INTER PARES? THE ACADEMIC AGORA SEEN FROM THE TOP (BY WOMEN)

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### ABSTRACT

The Nordic countries are well-known for their traditional emphasis on equality of opportunity. This paper traces the role of women leaders in academia in Norway, Sweden Finland and Denmark. In so doing, it takes stock of the number of female leaders (2004-2014 period) at the level of management and leadership structures (Rector, Vice-Rector, Director, etc.) within higher education institutions – both university and non-university sectors, in addition to the types of programs and initiatives (national and institutional levels) aimed at promoting gender equity in higher education. Qualitatively (interview data), the study sheds light on the differences and similarities as regards the roles and experiences (including major challenges) facing a selected number of current and past female university leaders across the region. The study contributes to new insights on the role of women leaders/managers within the context of a changing academic landscape, including the ways in which females at the top of the managerial higher education ladder have contributed to innovative and responsible solutions with the potential for unleashing significant structural and cultural changes in the institution of (Nordic) academia.

**Keywords:** *academic leadership, Nordic countries, female leaders, gender, higher education*

## **WOMEN ENTREPRENEURS AND THEIR ROLE IN COMPANY CREATION EVIDENCES FROM A SAMPLE OF INNOVATIVE TECH STARTUPS**

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### **ABSTRACT**

Entrepreneurial activity fosters the innovation and technological change of a nation (Schumpeter, 1943). Moreover, entrepreneurship is key for the economic growth of the country (Shane, 1995) and for job creation, especially when referring to new ventures (Vesper, 1996; Stangler and Kedrosky, 2010; Kane, 2010). For all these reasons, entrepreneurship has attracted the interest of scholars since many decades. In this field of research, a specific stream of research related to female entrepreneurship appears in the 1980s (Rodriguez and Santos, 2009) because of the increasing number of women that decide to turn into entrepreneurship. Nevertheless, women remain still underrepresented among entrepreneurs even/also in western industrialized countries<sup>1</sup> (GEM, 2013; GEM women's report, 2012; Carter and Brush, 2004; Kelley et al., 2013). Furthermore, this disparity raises questions about the entrepreneurial process/path started by women.

Gender appears to be a relevant factor, because women may still encounter many barriers in undertaking the entrepreneurial process. Empirical results are consistent with this hypothesis (Bates, 2002); the barriers faced by women owned businesses are qualitatively different than those faced by men owned firms. Such a difficulty can be determined by several aspects, like contextual factors, social structures, and family and organized life (Brush and Hisrich, 1991). According to Carter's and Brush's (2004) framework, it is possible to identify four categories of assets and attributes that affect, differently, men and women experiences in starting a new firm: human and financial capital, intentions, risk propensity, and family business background.

Moreover, research that investigates on the differences between businesses carried on by male and female entrepreneurs have been carried out by scholars from several countries (Cliff, 1998; Rosa and Hamilton, 1994; Alsos et al., 2006). First of all, "soft" facts, i.e. motivational drivers, have been taken into consideration while analyzing male and female entrepreneurs (Manolova et al., 2007). According

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<sup>1</sup> According to GEM – Global Entrepreneurship Monitor (2013) and to GEM – Women's Report (2012) results again confirmed that in most economies the female entrepreneurs are outnumbered by males. Women's participation in early stage entrepreneurship varies markedly around the world. For example, Sub-Saharan African rates of female early-stage entrepreneurship are comparable to their male equivalents. On the counterpart, the lowest relative rates of involvement in entrepreneurship by women can be found in several MENA economies and some European economies, where less than 50% of the early-stage entrepreneurs are women. As far as US, according to National Women's Business Council (august 2013), only 17.5% of employer businesses are 51% owned by one or more women. Yet, 18.8% of employer firms are at least 30% owned by women and have a woman in a leadership role.

to Manolova, Brush, Edelman's study (2007) on the US context, there are significant differences in motivations for starting a new business. Men result to be motivated by financial gains, self-realization and autonomy, while for women status is the main motivational driver. Other scholars argue that self-employment and financial independence are also important factors for women (Hanson and Pratt, 1991; Peters and MacDonald, 1994).

Secondly, some scholars focus on the differences in the growth rate of the companies founded by female and their male counterparts. The main difference arises in the fundraising process. Some studies have been carried out in different national contexts (i.e. Alsos et al., 2006, focus on Norway; Carter and Rosa, 1998, focus on Scotland; Watson, 2002, focuses on Australia; Verheul and Thurik, 2001, focus on the Netherlands, Hussain et al., 2010, focus on China) to try to identify the possible gender differences in fundraising and their possible reflection on company growth. Scholars outlined the difficulties that female entrepreneurs face in the early stage phases of a startup arguing that women entrepreneurs start companies with lower funding (Watson, 2002; Hussain et al., 2010) and that women-led startup are undercapitalized (Carter, 2000; Brush et al., 2004). Scholars are trying to better understand the difficulties that women face in raising financial capital, although we are still far away from an exhaustive explanation (Greene et al., 2001; Carter et al., 2006). The result is that, typically, women raise capital from relatives and friends (Reynolds and White, 1997). Moreover, women-led/owned business are often described as low performing in terms of revenues, size and rate of growth (Cliff, 1998; Gottschalk and Niefert, 2011). Industry, initial financial capital, education background, previous working and entrepreneurial experience, family entrepreneurial attitude have been investigated by different scholars as variables affecting venture performance (Fischer et al., 1993; Rosa et al., 1996; Watson, 2002; Fairlie and Robb, 2009; Gottschalk and Niefert, 2011). According to Fischer et al. (1993) there are mainly two theoretical perspectives to explain such differences in performance between women- and men-owned ventures. On the one hand, they suggest that women are disadvantaged in access to resources, i.e. in terms of human capital (education and working experiences) or financial capital. On the other hand, women have a different attitude towards risk and therefore adopt a different approach to business. However, scholars/research reach controversial results on these issues. First of all, the impact of education on venture performance has been debated a long and is still an open issue. Secondly, even though several studies show that experience has a positive impact on performance, other scholars proved that the gender gap (women have less managerial experience than men) seems to be insignificant for certain performance indicators (Fischer et al., 1993). Third, there is insofar no empirical evidence that female-entrepreneurs consciously choose to establish small firms, or organizations that grow less or slowly compared to man's companies, because of different attitudes toward risk or different values than their male-counterpart

(Manolova et al., 2007; Hanson and Pratt, 1991; Peters and MacDonald, 1994). To sum up, gender differences in venture performance are far away to be fully explained/covered by empirical studies. This is especially true if we consider that different national contexts have not been investigated yet under this perspective (Alsos et al., 2006).

Furthermore, other scholars analyze the contribution/role of women in team-created ventures. Although much literature on entrepreneurship focuses on entrepreneurs as individuals, many new ventures are formed by team of individuals. Godwin, Stevens and Brenner (2006), for example, focus on mixed-sex founding team and show how partnering with men may help women entrepreneurs to overcome the above mentioned prevalent obstacles providing them a sort of “legitimacy” in male-dominated contexts (i.e. access to resources/industries and diverse social networks).

Literature on female entrepreneurship has insofar focused on the aspects of analysis summarized above. Notwithstanding the increase of entrepreneurial activity among women, from the literature review it arises a substantial lack of studies focused on female entrepreneurship during the startup phase (Manolova et al., 2007). For this reason, this paper aims at filling the gap by analyzing a sample of female CEO of early stage startups. We decided to focus on the CEO being the lead person in the founders’ team and the key figure for the company and for its early strategic choices (Papadakis and Barwise, 2002). In particular we address the following research question: which are the common traits of women leading a startup founding team (CEO) and how these characteristics shape the initial phases of their newly established company?

To shed light on the proposed issue, we used Mind the Bridge 2013 dataset composed of 205 innovative new ventures from all over the world. In 2013 they voluntarily participated to Mind the Bridge Foundation<sup>1</sup> Survey 2013, performed with the purpose of studying the peculiarities of different entrepreneurial ecosystems. From the database emerges that 21 startups are led by female CEO. Mind the Bridge 2013 dataset contains up-to-date data on the company profiles (year and place of establishment, industry, no. of employees, business idea description in terms of source/motivational drivers/supporters and company investment profile) and data on the founding team (nr of founders, gender, role played in the startup, education background, previous work and entrepreneurial experience). Drawing from the above described theoretical framework, we focus the analysis on the traits that women leading a startup founding team (CEO) have in common and the role played by them in shaping the initial phases of their newly established company. Further evidence is presented on the reasons behind the choice of appointing a female CEO, their professional/entrepreneurial and education background. Peculiarities of their startups are presented such as industry, product (source of the business idea) and performance indicator, such as the amount of capital raised.

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<sup>1</sup> Mind the Bridge is a non-profit (501 c3) corporation based in San Francisco running several entrepreneurial education and acceleration programs for innovative startups.



These findings could represent a starting point for future academic research to be performed with the support of solid econometric analysis. For policy makers these could provide further evidence on the high tech business started/led by women.

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## INTRODUCING TECHNOLOGY-ENABLED HEALTH CARE: (A CASE STUDY - U.K. COMMUNITY HEALTH CARE)

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### ABSTRACT

The introduction of change, in particular where it carries a strong sense of innovation, remains a contested area of knowledge and of practice. In (UK) health care, where expectations associated with innovation are especially weighty in the politically and economically charged context in which health care currently sits, the development of a body of strong, practical knowledge about innovation management is a priority. The paper reports a case study, in which new technology to support health care is introduced into a specific care team to create a form of practice known as 'telehealth'.

Research into technology-supported innovation in health care, specifically, is rather sparse, but there is a wealth of literature on innovation implementation and diffusion, in general, on which to draw. But in their encyclopaedic review of the general innovation literature Greenhalgh et al (2005) note that "the evidence regarding the implementation of innovations was particularly complex and sparse, and it was difficult to disentangle from that regarding change management and organizational development in general." (p 610) And they note that "a striking feature was the tiny proportion of empirical studies that acknowledged, let alone set out to study, the complexities of spreading and sustaining innovation in service organizations." (610). Their suggestion is for future studies that are theoretically-driven, process-oriented and sensitive to context and the dynamic interactions between the particular factors that enable or militate against innovation.

The paper also responds to suggestions that 'further process-based studies are needed to provide a clearer evidence base for recommendations on how to facilitate the adoption and assimilation of beneficial new technologies' (Robert et al, 2010) and that 'of a burgeoning empirical literature, very little ...makes informed recommendations for those seeking to improve their organisations.' (Williams, 2011). It seeks, therefore, to contribute to development of an understanding - practically-based and -oriented, but with theoretical foundations - of the processes of adoption and assimilation of innovative change to health care.

We draw on work on two complementary bodies of theory. First, we draw on a recent typology of forms of 'institutional work' (Lawrence and Suddaby, 2006), which provides a repertoire for "intelligent, situated institutional action" (p219). Such action serves to change or to maintain institutions - 'rules and shared meanings...that define social relationships, help define who occupies

what position in those relationships and guide interaction..." (p216). The boundaries between professional and lay action and between human carers and technology in health care practice are two such institutions under renegotiation and central to our case. Second, we draw on actor-network theory (eg Law, 1994), identified by Robert et al (2010: p6) as an approach to be explored further in healthcare innovation studies, since it highlights the 'generative power of the socio-technical network as a whole' rather than any one element in isolation, in explaining how change and stabilisation occur. We use these theoretical perspectives to present and analyse the basic 'chronology' of innovation – adoption, assimilation and routinisation, continuation and sustainability - that is now well-accepted in the literature as a framework (eg Williams, 2011). We analyse the process of change, that is, the sequence of events in relation to its intended (and realised) outcome, using the typology of forms of institutional work. Specifically, we focus on how the governance, legitimation, and alignment/integration of the elements of practice occurred to make the outcome realisable. And we give an account of the 'intelligences' contributed by differing professional groups as they negotiated the terms of the reordering; that is, the way different actors made sense of and so structured their contributions to the reordering.

The telehealth system that forms the specific focus of the paper invites and supports patients with a long-term condition – diabetes – to participate more fully in their care and to ensure that care resources are effectively targeted in ways that require very limited investment, either by the NHS, by the professionals or by the patients themselves. Systematic research into the value – the outcomes for patients and for the NHS - realised by this innovation (telehealth) is underway. This paper traces and examines the natural history of co-creation of value that this reconstitution of care practices enables. The case is of a UK Clinical Commissioning Group, able to access the technology enabling telehealth and associated expertise through the UK NHS working with a health care provider organisation responsible for delivering diabetes care to a small population. We identify and explore tensions that practitioners from the health service organisations report arose in what was a most straightforward technology-supported innovation. We argue that the case we present is valuable because the tensions and the complexities arising in the process of introduction of the new practice may, perhaps, be seen the more clearly because of the straightforwardness of the technology itself. Those complexities relate to the micro-processes of innovation and value co-creation and are drawn from analysis of interviews with eight individuals directly involved in the process of introducing telehealth – a technologist, service managers, technology advisors, a GP, and Nurse Specialists. Ethical approval for the study was based on an interview guide that explained the study purpose as "to gather an account, from a variety of different perspectives and experiences, of the implementation of diabetes telehealth in this Clinical Commissioning Group". The five substantive sections of the interview were intended to

cover the chronology and process of implementation, as follows: 1) The Health care innovation, 2) The processes of decision and pre-arrival planning for use, 3) The arrival of the technology and first steps to implementation, 4) Trialing, learning and review – who involved, where was first use etc., 5) Bedding in (routinisation – becoming ‘unproblematic’, a normal part of practice).

Our reading of the interviews focused on identifying and extracting: (first reading) the basic chronology of events; (second reading) identification of key themes – governance, legitimization, alignment; and (third reading) the pattern of forms of institutional work and the way the socio-technical system started to reform. The paper explores the following:

- a) *The governance of innovation*: including how organisational attention to innovation was in tension with the emergence of individual projects and entrepreneurship and practical questions about the authorisation context – expectations of responsibility, discretion, approval and control, and accountability – throughout the innovation process. These findings have implications for the ways in which innovation might best be managed at the organisational level and for the work of individual innovation entrepreneurs.
- b) *Strategies of justification and legitimation*. Within this broad question of governance, we explore the terms in which the act of imagination that started and sustained the innovation was communicated, appraised and negotiated in and between health care organisations for its ‘fit’, potential value and viability and how specific sites or locales for innovation may emerge.
- c) *Issues encountered in making innovation ‘stick’ and spread....* a simple and flexible technology was introduced, but not as a validated ‘package’ of practice. Rather the innovation process gathered and ‘stitched together’ a set of fragments to form the new practice routine. We distinguish between achievements of alignment and integration that emerge from that process and suggest implications for (continuing) leadership (institutional work). Finally, we reflect on work beyond the immediate innovation site as the potential for adaptation and translation of the experience to other contexts is assessed.

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## **THE ASSESSMENT OF CANDIDATES TO MULTINATIONAL FIRMS – UTILIZING THE CONCEPTS OF LIFE SPACE, AND ENVIRONMENTAL AND CULTURAL VARIABLES, AS A SUBSTITUTE TO PERSONALITY VARIABLES.**

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### **ABSTRACT**

There are difficulties in obtaining a reliable and valid assessment of candidates for multinational firms, where the assessors are not of the local culture. Research data of interviews including general impressions, bio-data as well personality tests shows cultural biases. The assessment focuses on the candidate competencies and personal traits, while knowledge related to the candidate's life situation, his priorities or people who may influence his career decisions, is not part of the assessment. Culture definitions in different terms and weights of the role of work versus family, religion or leisure, professional, situational and other social and factors are often missing.

Thus, we assert that the data to be used for the selection and/or development of candidates from all over the world seems to be of limited use, when we ignore environmental factors.

An alternative approach is proposed based on the theoretical concept of Kurt Lewin's Life Space. The basic idea is to focus on the current subjective life situation of the individual and look for the individual central issues in life, instead of assuming that the person himself is everybody's central choice. The candidate is asked to draw a personal Graph, where elements are central people or central events in his career, and these elements are depicted as points. If he/she finds connection among people and/or events, he/she uses a line to show the connection. The early paper and pencil version of such an exercise was introduced to several scores of candidates for a multinational software company in various countries, such as the USA, Israel, Cyprus, Ireland, Poland, Romania, Austria, Czech Republic, India and Slovakia among others. All of the candidates were supposed to work in a different culture, most of them to be relocated. The results proved to be fruitful as an aid to the interviewing process by relieving cultural biases. Characteristics such as the different role of family in various cultures, varying roles of religion, and the degree of motivation to work "around the clock" were supposed to fit the Israeli pattern of software workers, before using the graph. After using the graph, a very different pattern was revealed. The broader picture assisted with the dialogue with candidates (Rimmer, 2008). A new version of this tool is currently being introduced; it is more quantitative and has been developed as a software tool (the software was developed by Pilat of HI Capital group L.T.D., all rights reserved). The research examines the possible contribution of the new tool as an aid to interviews in a multinational environment and addresses the following questions:

1. To what degree does the new tool helps interviewers to form a better understanding of the candidates, as measured first by the qualitative tool, and later by the quantitative questionnaire. The tool is compared with the current bio data and interview procedure.

2. How does the new tool compare with other assessment procedures with regards to reliability, concurrent validity, and relative weight in the integrated assessment process.

We intend to further develop the study along two parallel lines:

1. Develop a theory for candidate descriptions in which our own personality is not necessarily the center of our life, and situational as well as cultural factors are given the appropriate weight. New meanings to net concepts will be introduced – size, connectivity, focal points, in people life.

2. Further develop the methodology of personal net drawing to enhance the effectiveness of the tool, and improve the validity of quantitative measures derived from the personal net.

**Keywords:** *Assessment, Multinational, Personality, Life Space, Personal Graphs, Personal Nets.*

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## SUSTAINING GLOBAL ECONOMIC GROWTH: THE ROLE OF SOVEREIGN WEALTH FUNDS

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### ABSTRACT

**Introduction** – In the highly volatile global financial system dominated by risk aversion, liquidity pressures and asset write-downs, sovereign wealth funds (SWFs) have emerged as a critically important source of capital. SWFs represent the outcome of the highly skewed imbalances between debtor nations and nations with surpluses. Although the contribution of these funds has been widely recognized, speculation about the motives and objectives of these large funds has remained a source of controversy and debate among policymakers, market players and scholars. Two main reasons account for such concerns: the large magnitude that these funds represent and the role of national governments in the management of these large funds. SWFs represent the largest concentration of capital that the world has ever known. It has been estimated that the funds exceed five trillion dollars; this figure is expected to grow by 2015 to 12 trillion dollars. While global conditions continue to hinder the availability of capital resources, SWFs continue to increase their role as global sophisticated investors, proposing an alternative not only to encourage global economic growth, but also sustainability. The proposed research project seeks to evaluate the implications of SWFs in the global economic-financial system and their potential as source for sustaining global economic growth. SWFs have begun to tilt the balance of the governance of international macroeconomics.

**Design/methodology/approach** – The mixed methods of research (quantitative and qualitative techniques) will be utilized; as such an approach is appropriate for the validation of results through triangulation. The range of quantitative methods can enable the identification of the most significant variables influencing the role of SWFs in the global financial system. Whilst, the use of qualitative techniques will assist with the collection of primary data from policy makers of selected countries; the qualitative techniques will also permit us to compare strategic policies among holding countries of SWFs. Qualitative data will be collected through the survey method of research that utilizes questionnaires and interviews.

**Findings** – We expect that our results will clarify the factual impact of SWFs in the global economic system. Although SWFs represent the outcome of the highly skewed imbalances between debtor nations and nations with surpluses, this research project suggests that SWFs remain a potent capital source for global economic growth. We expect that our findings will demonstrate the great potential



that SWFs represent as providers of the much needed liquidity and investment for sustaining global economic growth. It has been observed that these gigantic funds are tilting the balance of governance of international macroeconomics. The proposed research shall also contribute with important facts that the world policymakers need, so they can carry-out the necessary economic policy adjustments of global governance. We expect that this research project will deliver new empirical knowledge, theoretical and methodological advances and contribute to embryonic academic literature in this important field of research.

**Originality/value** – The phenomenon of SWFs is not a new one, the first SWF was established in 1953; however, the participation of SWFs as active global financial investors is novel. Although in recent years considerable attention has been drawn to these financial instruments and their impact on the global economy, scholarly research on the topic of SWFs remains limited. To date, no theories have been developed to analyze and forecast the impact of these new global financial players. In spite of the limited scholarly research found on the topic of SWFs, two main perspectives can be identified concerning with this topic. The core of the argument of these two perspectives has been conveyed in the above section (literature review). One perspective is much more apprehensive to the beneficial role of SWFs, while the other perspective considers that SWFs are bringing benefits to the global economy. Although SWF are receiving significant attention from policy makers, market players and scholars much remains unknown. Therefore, we consider, whilst the global economic situation continues to hinder the accessibility of capital resources, SWFs are offering an alternative source for sustaining global economic growth. Nonetheless, there is a need for international macroeconomic cooperation in which multinational financial institutions and governments alike work out together a global program, one in which these new financial players (SWFs) are consider as one of the possible solutions to future economic prospects.

**Keywords:** *Sovereign Wealth Funds, Global Economic Growth, Governance of International Macroeconomics*

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## **LABOR UNIONS' EFFECTS ON MERGERS AND ACQUISITIONS SUCCESS: UNIONIZED M&A VERSUS NON-UNIONIZED M&A**

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### **ABSTRACT**

The continuing global financial crisis accelerates the natural conflict between labor unions' interests in job security and higher wages, and employers' interests in maximizing efficiency (Becker and Olson, 1989), which emphasizes the importance of understanding how labor unions influence M&A activity. On one hand, the long crisis encourages companies to reduce costs, diversify firm activity and exploit their activities to new geographic markets through the Merger and Acquisition (M&A) strategy (Grave et al., 2012). On the other hand, the ongoing global crisis forces many companies to cut jobs, which emphasizes the importance of labor unions for the workers, particularly during workforce reductions and organizational change. From the point of view of the workers, labor unions should protect them from losing their jobs, particularly if they hold permanent jobs (Davidsson and Emmenegger, 2013).

The main concern of the decisionmakers that engage in M&A activity is that unionized M&A may result in a complicated integration process without improving efficiency or realization synergy potential. In light of that, from the point of view of the managers and policymakers that engage in M&A activity, several important questions arise: (i) Do labor unions influence M&A success? (ii) Do labor unions lead to more complicated integration processes that may harm integration success? (iii) Are there differences between non-unionized M&A and unionized M&A, with regard to M&A success that reflects through the outcomes of synergy success and efficiency success?

The existing literature that attempts to explain M&A success and failure has traditionally focused on strategic and financial factors (Stahl et al., 2013), and recently more studies have been exploring the sociocultural and human resources factors (Weber and Tarba, 2013), but still the existing literature lacks studies that examine the industrial relations factors on M&A success. There are a few studies – most of them earlier studies – that examined the relationship between M&A activity and labor unions (Armah and Peoples, 1997; Fallick and Hassett, 1996; Heywood and Peoples, 1994; Rosett, 1990), but these studies focused mainly on the motives for acquiring unionized firms or on the consequences of the M&A activity on the unions' power.

This study seeks to fill some of these gaps. The goal of the present study is to explore the effect of labor unions on M&A success, and in particular, on integration success, synergy success and efficiency

success, which reflect the main objectives of M&A and the complexity of the M&A process. Moreover, exploring the relationship between the labor unions and M&A success, by comparing unionized M&A and non-unionized M&A, may provide one layer of understanding, while exploring the role of labor unions as a mediator variable between the types of M&A and M&A success will help to obtain a deeper layer of understanding regarding the effect of labor unions on M&A success. The type of M&A influences the match and relationship between the acquirer and the target, which may also affect M&A success (Calipha et al., 2010). Therefore, recognizing the types of M&A may help to predict which type of M&A is more vulnerable for failure, and how the labor unions influence the relationship between the types of M&A and M&A success.

To address this goal, the present study developed mediation model in order to explain how labor unions affect M&A success. The suggestion research model is novel, and may help to understand how labor unions mediate the relationship between the types of M&A and M&A success. The model also takes into account the different stages of the M&A process. The model includes three pairs of types of M&A: international versus domestic, related versus unrelated, and different size versus similar size, which reflect the differences between the types of M&A with regard to the complexity of the integration process. The model also includes five mediator variables in order to explore the impact of labor unions on M&A success: non-unionized M&A, unionized M&A with union of the acquirer, unionized M&A with union of the target, unionized M&A with one union (acquirer or target), and unionized M&A with two unions (acquirer and target). Based on the literature, hypotheses were developed and tested using a sample of 394 public companies (197 acquirer companies and 197 target companies) that were involved in mergers or acquisitions.

Most of the companies that included in the sample were from USA, but the sample included companies from varied sectors. The sample was drawn from M&A sourcebook edition 2002, published by NVST.

The results of the study highlight the novelty of the research, particularly with regard to the differences effect on M&A success between the labor union variables. The study indicates that unionized M&A with one union, either acquirer or target, leads to both integration success and synergy success, while unionized M&A with two unions, both acquirer and target, leads to failure of the integration process. These results may suggest that the integration process becomes more complicated due the political in-fight, if the M&A involves two unions. The study even indicates that the union of the acquirer leads to a failure of the integration process, while the union of the target leads to efficiency success. This difference suggests that if the motive for the M&A is efficiency-seeking, then a target with firm with a labor union may allow the reducing of costs, while an acquiring firm with a labor union may complicate the integration process, resulting in failure.

Nevertheless, the study indicates that unionized M&A has more negative effects on M&A success than non-unionized M&A does. The results confirm the argument that unions reduce profitability. Moreover, the study indicates that non-unionized M&A leads to synergy success and efficiency success, without negative effect on the integration process. This suggests that the integration is less complicated in non-unionized M&A, resulting in improved efficiency and realization of synergy potential.

**Keywords:** *Efficiency, Integration, International M&A, Labor unions, Merger and Acquisition (M&A), M&A success, Related M&A, Synergy*

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## A BIBLIOMETRIC STUDY ON THE ENTREPRENEURIAL ORIENTATION (2001-2013)

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### ABSTRACT

The entrepreneurial orientation is a crucial component of the entrepreneurship and strategic fields. Since the 80s, more researchers are studying the main characteristics of an entrepreneurial firm in different contexts: reflecting risk-taking, innovativeness, proactiveness, autonomy, and competitive aggressiveness (Miller, 1983; Lumpkin et Dess, 1996 ; Basso et al. 2009). Today, no research was interested to sum up the main works on this subject. This paper provides a bibliometric study of articles over a period of thirteen decades (2001-2013).

The bibliometric studies' aim is to understand the evolution of a particular research field and to describe what appears (White and McCain, 1998). The bibliometric studies are based on the mathematical and statistical methods of patterns that appear in the publication (Diodato, 1994, Ramos-Rodríguez and Ruíz-Navarro 2004). Based on this aim, we conducted quantitative and qualitative analysis. A total of 312 papers were gathered from the EBSCO data base.

The following table details the number and the methodology of these papers.

2001-2013	Articles					Total
	Quantitative methodology (Qn)	Qualitative methodology (Ql)	Mixed methodology (M)	Conceptual (C)		
				Literature review	Theoretical framework	
Articles published in ABS ranked journals						
Number	132	13	0	11	7	163
Frequency	81%	8%	0%	6,7%	4,3%	100%
Articles published in « ABS unranked » journals						
Number	105	19	3	11	11	149
Frequency	70,5%	12,8%	2%	7,4%	7,4%	100%
Total of papers						
Number	237	32	3	22	18	312
Frequency	76,0%	10,3%	1%	7,1%	5,8%	100%

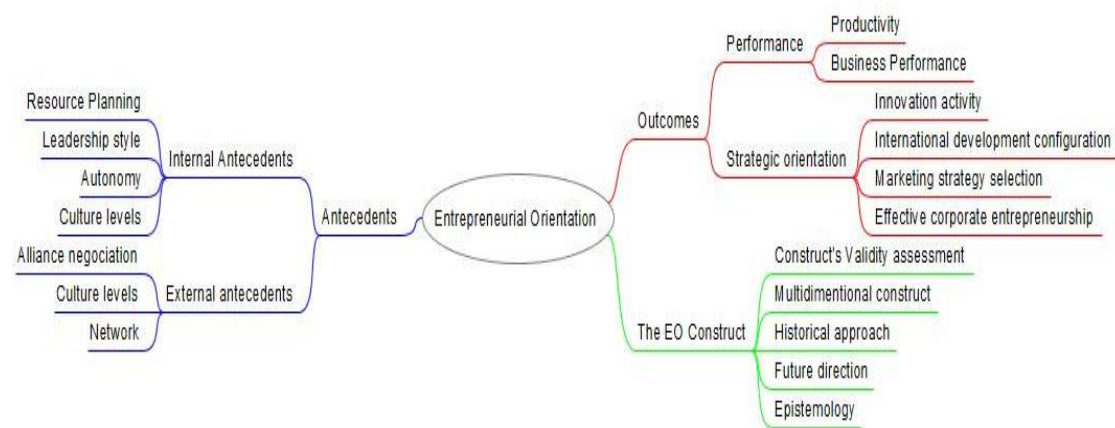
For each of these 312 published papers, the following information was gathered:

articles types	Title Author (s) Year Journal Key words Theories Main results Added value, limits and future research	Concept	Panel	Period of study	Context	Data collection methods	Analysis methods
Art. C		X					
Art. Qn			X	X	X	X	X
Art. Ql			X	X	X	X	X
Art. M			X	X	X	X	X

All these collected information was analyzed through qualitative and quantitative methods. First, frequency measurements and rankings were elaborated in order to classify the main content of the 312 papers: contexts, review ranking and methodology. Four main clusters of research are identified: quantitative (Qn), qualitative (Ql), conceptual (C) and Mixed (M).

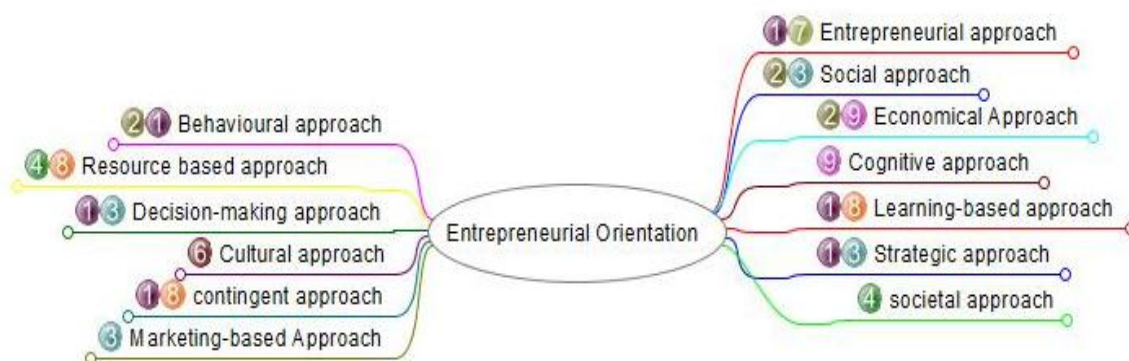
2001-2013		Articles					Total
		Qn	Ql	M	C		
					Literature review	Theoretical framework	
Data sources							
Primary	Number	225	29	3	---	---	257
	Frequency	91,09%	82,86%	100%	---	---	90,18%
Secondary	Number	22	6	---	---	---	28
	Frequency	8,91%	17,14%	---	---	---	9,82%
Total		247	35	3	---	---	285
Used methods							
Questionnaires	Number	194	1	3	---	---	198
	Frequency	77,60%	2,33%	100%	---	---	66,89%
Interviews	Number	7	11	---	---	---	18
	Frequency	2,80%	25,58%		---	---	6,08%
Data bases	Number	15	2	---	---	---	17
	Fréquence	6,00%	4,65%		---	---	5,74%
Surveys	Number	26	---	---	---	---	26
	Frequency	10,40%	---	---	---	---	8,78%
Case studies	Number	---	28	---	---	---	28
	Frequency	---	65,11%	---	---	---	9,45%
Others*	Number	8	1	---	---	---	9
	Frequency	3,20%	2,33%	---	---	---	3,04%
Total		250	43	3	---	---	296
Analysis types							
Cross sectional	Number	211	6	3	---	---	220
	Frequency	88,66%	17,14%	100%	---	---	79,71%
Longitudinal	Number	27	29	---	---	---	56
	Frequency	11,34%	82,86%	---	---	---	25,45%
Total		238	35	3	---	---	276
* Benchmarking reports, government and academic publications, prospectuses, archival, focus group, Documentary analysis.							

For the qualitative analysis part, a content analysis is elaborated by using the « Freeplane » software (Version 1.2.23). First, it aims to sum up the main concepts used by researchers since 2001 to study the entrepreneurial orientation (EO). The determinants and the consequences of this concept were highlighted for each cluster. The map example concerning the conceptual papers is as following :



**Figure 11: EO: Determinants and consequences of entrepreneurial orientation (conceptual papers, 2001-2013)**

Second, all the used theories in the 312 papers were analyzed in order to identify and give a better understanding of the main approaches of the Entrepreneurial orientation concept. Thirteen approaches were identified as shown in the following figure.



**Figure 12 : Theories and approach to study the entrepreneurial orientation concept (2001-2013)**

**Keywords:** *Entrepreneurial orientation, bibliometric studies, theories, quantitative, qualitative, mapping*

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## ENHANCING EMPLOYMENT MOBILITY IN EUROMEDITERRANEAN BASIN WITH DEADALUS

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### ABSTRACT

During the last years, European Union (EU) mainly emphasises on training, education and employment (Kafouros, 2010) and focuses on increasing mobility across European countries and enhancing lifelong learning. Information technology and the use of Internet affect the Human Resource Management reality (Mansourvar and Yasin, 2014) and contribute to the above. Through the online career portals and several web tools related to job searching and career advising, the EU aims to increase employability for its citizens and to face the unemployment rate that especially affects youth. Therefore youth, employers, job seekers, students, entrepreneurs, governmental and non-governmental institutions are the main stakeholders of these portals (Stemmer et al., 2004).

*Euroguidance, Eures, Ploteus, European Youth Portal, Eurodesk, EU Careers* and *Deadalus* are only some of the European portals that are designed to satisfy EU objectives for training, education and employment. For the implementation of the above goals it is crucial to ensure the service quality of the portals and of the Webpages related to job searching and career advising (Zeithaml et al., 2002).

*Deadalus* (euro-meDiterranean cAreer and Employment aDvisor portal for the mobility of young residentS) is a new online job searching and career advising portal with the aim to meet the needs expressed in the labour market of Mediterranean basin and to forecast the future needs. *Deadalus* comes to add an additional value to the existing portals and offers its services to both, European and Mediterranean countries.

The aims of the study are to examine the existing online career portals via primary and secondary resource data and propose ideas for the development of the euro-meDiterranean cAreer and Employment aDvisor portal for the mobility of young residentS. An objective of the survey is to trace the main criteria that are necessary for the creation of a quality portal via literature review analysis. Further objective is to examine in depth the deficiencies of the portals currently in use via observations and quantitative survey (questionnaires) with the stakeholders. Further, in combination of the survey data *Deadalus* portal will be developed and tested via nine pilot workshops in Cyprus, Lebanon, Italy, Tunisia, Greece and Palestine. Participants in each of these workshops will be the main stakeholders via quota sampling (youth, students and job seekers; entrepreneurs and employers;

governmental and non-governmental institutions). These pilot workshops are essential for the evaluation, improvement and the development of the final portal of *Deadalus*.

The literature review analysis indicates the main criteria guaranteeing the quality of the portals and their functionality (Stemmer, et al., 2004; Mansourvar and Yasin, 2014) like feedback, communication and complaint opportunities (Yang et. al, 2004; Stemmer, et al., 2004), customisation and personalisation (Venable, 2010; Liljander et al., 2002), confidentiality, safety and privacy (Venable, 2010; Stemmer, et al., 2004), easiness of use (Zeithaml et al., 2002; Venable, 2010), reliability and validity, trust, responsiveness, storage capacity, portal aesthetics, privacy, accuracy of information, processing spread technology thrill (Zeithaml et al., 2002), interesting links and supportive services, as well as quality and variation of job postings (Liljander et al., 2002). The theoretical observations also illustrate as a gap the fact that in most online job portals the users could not find easily the information they needed, and usually there was not much information to help them (Stemmer, et al., 2004; Mansourvar and Yasin, 2014). Also it has been argued that job seekers sometimes were confused with the mass of information, claiming that they need only accurate and necessary data (Yang et al., 2004; Liljander et al., 2002).

Further, an empirical study was developed in order to assess the existing online employment portals through questionnaires distributed to jobseekers, employers and government officials in Cyprus, Lebanon, Italy, Tunisia, Greece and Palestine. The results indicated in accordance to the aforementioned literature review that most of the employment websites lack professionalism appeal, are not friendly, search engines are not comprehensive and that there is no credibility and safety but confusion. The study therefore shows outmost recommendations for enhancing the functionality of a new career portal such as *Daedalus* and innovative suggestions such as the accession of a category-section for minority groups of job seekers like elderly people seeking employment after retiring, immigrants, people with special needs, long-term unemployed and also female entrepreneurs.

*Deadalus* portal, taking into consideration the literature review, observation and questionnaire data, will be developed and tested via nine pilot workshops in Cyprus. The results of these workshops with the combination of the results of other similar workshops that will take place in the other Euromediterranean countries will determine the final *Deadalus* online career portal.

**Keywords:** *Deadalus, Euromediterranean Basin, mobility, online career portals, information technology, job, employment, training.*

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## TOWARDS A FRAMEWORK FOR CHANGE: DESTINATION MARKETING IN NORTH-WEST ENGLAND

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### ABSTRACT

This conceptual paper is concerned with the ways in which destinations or places are marketed in the UK and in particular with the ways that a specific sub-region in North-West England called Cheshire and Warrington is marketed. The context within which the research is situated has been shaped by a significant change in UK government policy, by international changes in practice and by emerging themes in the literature surrounding the subject area.

In 2011 the Minister for Tourism and Heritage in the UK Government's Department for Culture, Media and Sport published a new Government Tourism Policy (Department for Culture, Media and Sport 2011 *Government Tourism Policy*). This document records that 200,000 businesses operate in the British tourism industry contributing over £50bn to GDP and providing 4.4% of employment. Tourism is also one of the fastest growing sectors in the British economy (Department for Culture, Media and Sport 2011 *Government Tourism Policy*). The policy document sets out the UK government's position with regard to the visitor economy including an intention to create new independent tourism bodies, to ensure that these bodies have a responsibility to engage in destination management rather than destination marketing and to significantly reduce the public funding of destination management and destination marketing activity in the future. Such a policy change will require the private sector to fill the funding gap that will be created if destination marketing/management is to continue to function in a similar way to the way in which it has functioned in the past. This may entail the establishment of a new and novel form of public-private partnership.

Exploration of the extant literature relating to this field has identified a number of emerging themes and issues. These include debates over how the consolidation of the body of literature concerning this subject area can best be achieved (Gertner, 2011; Hankinson, 2010); the lack of empirical evidence that pertains to this subject area (Gertner, 2011); the feasibility and/or desirability of differentiation in the complex area of destination marketing (Anholt, 2009); the role of stakeholders in destination marketing (Hanna and Rowley, 2011; Kavaratzis and Hatch, 2013) and the process of place or destination marketing (Eshuis, Braun and Klijn's 2013).

The aim of the research is to establish an insight into how a destination marketing organisation can engage with its stakeholders in order to operate effectively in circumstances of reduced government

support. To achieve this the paper explores the ways in which a change of emphasis from destination marketing to destination management can be accomplished, how stakeholder engagement can best be achieved through the management of change and implications for leaders as they implement this change.

The research focuses upon the geographical sub-region of Cheshire and Warrington which is located in the North-West of England. The annual value of the visitor economy in this sub-region is £2.5bn (whycheshire.com). The study adopts an interpretivist stance and will analyse qualitative data derived from semi-structured interviews with destination marketing stakeholders and practitioners.

The key stakeholders in terms of their power and interest in respect of the destination marketing of the sub-region are the 53 corporate partners of the destination marketing organisation in the sub-region (whycheshire.com). These corporate partners include one of the UK's largest issuers of credit cards, one of the world's foremost manufacturers of luxury vehicles and many other smaller commercial entities. Appropriate interviewees will be sought from amongst this group of corporate partners in addition to destination marketing practitioners.

The data will be analysed by in-depth reading and re-reading in order to identify emerging key themes. It is anticipated that an appropriate software package e.g. NVivo will be utilised to facilitate exploration and analysis of the data.

The research is expected to make a valuable contribution to the subject area of destination marketing in several ways. Firstly, it will contribute valuable empirical data to a domain that is currently underdeveloped. Secondly, it will contribute to the development of a conceptual model which, after being applied and tested, will describe the optimum configuration of a public-private partnership in destination marketing/destination management. This will partially address the acknowledged need for theory-building in the field of destination marketing (Gertner, 2011). Finally the research will contribute to practice by offering valuable insight into the perceptions of stakeholders in the destination management process. This insight will be particularly useful to destination management practitioners. The importance of these contributions is contextualised by the very considerable value of the tourism industry to the British economy.

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# **THE INFLUENCE OF MARKET INTELLIGENCE AND MARKETING MIX ADAPTATION EFFORTS ON THE PERFORMANCE OF ISRAELI BORN GLOBALS**

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## **ABSTRACT**

## **INTRODUCTION AND CONCEPTUALIZATION**

Born globals (BGs) are often viewed as a unique breed of international entrepreneurial small and medium enterprises (SMEs), with the potential for accelerated internationalisation and a global market vision (Gabrielsson & Kirpalani, 2012; Gabrielsson, Kirpalani, Dimitratos, Solberg, & Zucchella, 2008).

When considering international marketing strategy of international new ventures, a review by Aspelund et al. (2007) has revealed that previous research largely ignored critical international marketing strategy question, concerning the standardisation versus adaptation/localisation of marketing mix elements (Ryans, Griffith, & White, 2003; Theodosiou & Leonidou, 2003). This question is of particular importance, both due to the effects international marketing strategy has on international firm performance in general (Cavusgil & Zou, 1994; Knight, Madsen, & Servais, 2004; Leonidou, Katsikeas, & Samiee, 2002), and the effect standardisation and/or adaptation strategy has on firm performance in particular (Shoham, 1999; Zou, Andrus, & Norvell, 1997).

Since BGs often need to deal with operations in dynamic and volatile markets (Efrat & Shoham, 2012), as well as with liabilities of newness, smallness and foreignness (Zahra, 2005), they must also exhibit strong abilities to learn, adapt and change (McDougall & Oviatt, 1996). More specifically, marketing orientation is defined as organization-wide generation, dissemination, and responsiveness to market intelligence (Kohli & Jaworski, 1990). Authors suggested that successful BGs devote active efforts to collecting and generating market-related intelligence (Gabrielsson et al., 2008; Zhou, Wu, & Luo, 2007). Nevertheless, the relationship between BGs' market intelligence efforts and their performance has, thus far, largely gone unstudied.

Hence, the current study is seeking to address these gaps, while contributing to the understanding of BGs' post-establishment performance.



## METHODOLOGY

Data was collected from Israeli BGs, in line with Knight et al.'s (2004) operational definition for BGs, using an online questionnaire sent to a member of the managerial team. We ended up with 69 firms (23.5% response rate).

### *Measures*

Performance was measured using the EXPERF scale developed by Zou et al. (1998). The scale includes nine items which are divided into three sub-scales of three items each measuring financial, strategic, and satisfaction aspects of firm's performance.

Market Intelligence Generation was measured using the ten items from Jaworski and Kohli (1993) scale for the intelligence generation aspect of market orientation.

Marketing adaptation was measured based on Lages et al.'s (2008) STRATADAPT scale. We have included only sixteen of these items, incorporating items representing product, price and promotion element of the marketing mix.

## FINDINGS AND DISCUSSION

Our analysis shows that market intelligence generation efforts positively and significantly affect BGs performance ( $p < 0.001$ ). In this sense, our findings are consistent with earlier findings suggesting that market orientation in general impacts firm performance (Kocak & Abimbola, 2009; Kropp et al., 2006; Morgan et al., 2004; Wang et al., 2009).

Table 1. Regression Results

	B	s.e.	Exp ( $\beta$ )	VIF
Intercept	7.445	11.672	-	-
Product Adaptation	0.077	0.122	0.074	1.160
Price Adaptation	0.031	0.144	0.031	1.722
Promotion Adaptation	-0.079	0.143	-0.076	1.621
Sales Force Adaptation	0.302*	0.135	0.290	1.422
Market Intelligence Generation	0.380***	0.112	0.377	1.059
BG Maturity	5.404	4.019	0.153	1.100
R <sup>2</sup>	.272 (R <sup>2</sup> ); .201 (R <sup>2</sup> adjusted)			
F-Statistic	3.854**			
N	69			

Notes: significance levels - †  $P < 0.1$ , \*  $P < 0.05$ ; \*\*  $P < 0.01$ ; \*\*\*  $P < 0.001$

Our findings also show that while the sales force dimension of promotion adaptations impact BGs performance ( $p < 0.05$ ), neither adaptation nor standardisation in product, price and the advertising dimension of promotions impact BG performance. Here, with respect to promotion, our findings may be somewhat similar to those by Zou et al. (1997), who showed that adaptation of customer service was significantly correlated with export intensity, while standardised promotion was not. More specifically, with respect to adaptation of sales force, our findings are also similar to those of Shoham

(1996), who identified a significant effect of sales force management adaptation on sales, profits and profit change in his sample of US manufacturing exporters.

Moreover, the finding of non-significant effects of marketing mix elements on performance supports earlier studies showing similar results (Navarro et al., 2010; O'Cass & Julian, 2003; Samiee & Roth, 1992), while further exhibiting that such findings also hold when breaking them into the specific components of product, price and advertising dimension of promotions. We concur with earlier calls for more nuanced analysis acknowledging potential contingencies (Katsikeas, Samiee, & Theodosiou, 2006; Schilke et al., 2009; Theodosiou & Leonidou, 2003). More specifically, more detailed analysis of particularities associated with specific target markets, industries, timing, and co-alignment with other firm strategies may all be relevant to understanding discrepancies in results; especially, when evaluating effects of marketing adaptation and standardisation strategies on firm performance.

Moreover, the same logic can also explain an additional interesting observation indicating that market intelligence generation efforts do not significantly correlate with any of the marketing mix adaptation elements. Here, one may again suggest that marketing intelligence informs both adaptation and standardisation of marketing mix elements at the same time, and that both occur simultaneously with respect to different specific elements and market contexts.

**Keywords:** *Born Global, Standardization, Marketing intelligence, performance.*

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## INTERNATIONAL STUDENTS AND THEIR DISSERTATIONS: LET'S NOT PUT SQUARE PEGS INTO ROUND HOLES

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### ABSTRACT

To many, the dissertation remains the crowning glory, the pinnacle of the undergraduate bachelor degree experience. For the uninitiated, this experience represents a significant challenge rife with potential stresses and burden. This is especially true for those students writing their dissertation in their second or third language. The idiom presented in the title is deliberate to highlight how easy it is to confuse those unfamiliar with a particular concept. Thus, add the language challenge to the already well-documented challenges surrounding dissertations (e.g. Day and Bobeva, 2007; Huang, 2007) and we can see how such a metaphor begins to emphasize the potential journey of a non-native speaker of English. This abstract presents some of the data from a yearlong study within a UK university that tracks a cohort of just over 300 international students completing their final year dissertation. Importantly, an innovative approach to assessing international student dissertations is examined. This leads to findings and recommendations within an under-researched area of study (e.g. Greenbank *et al.*, 2008; Huang, 2007; Todd *et al.*, 2004) and helps to encourage academics to contemplate the incorporation of similar innovations.

The innovative dissertation approach moved away from the traditions of submitting one large final document. Instead, the assessment was split into four parts: a research proposal leading to formative feedback; a literature review representing 2000 words and 30% of the summative assessment; a data findings and analysis submission representing 2000 words and the next 30% of the assessment; and a final full dissertation submission of 6000, whereby only 2000 words were assessed for the final 40%. Data were collected within a longitudinal approach using surveys at five different time points across the academic year before and after each assessment element. 310 dissertation students were involved in the study and the total number of usable responses from all questionnaires were 546. The nationalities used within the data collected were Chinese (participant frequency of 282), German (131), French (63) and Spanish (13) and the participant frequency represented the course cohort distribution effectively well. The following provides a breakdown of the questionnaires at the five different time points:

- Questionnaire 1: 144 responses (46.5%)
- Questionnaire 2: 104 responses (33.5%)
- Questionnaire 3: 172 responses (55.5%)

- Questionnaire 4: 79 responses (25.5%)
- Questionnaire 5: 47 responses (15%)

Where responses were considered particularly low in the final questionnaire distribution compared to other time points, 7 in-depth semi-structured interviews were carried out to compensate for this. The quantitative data were fed into SPSS and analysed using relevant statistical tests.

Two research questions were addressed:

1. How does the innovative assessment approach used on the dissertation impact on students' experience?
2. What differences exist regarding nationality within the dissertation experience?

In terms of assessments, there were a number of distinct findings. One main area of focus links to the receiving of the first summative mark and feedback. Compared to later summative assessments, students were particularly unhappy with their first mark and the feedback that came with it. This becomes even more significant when considering that students were generally happy with the module up until that moment. However, happiness took a significant dip and did not recover until the final questionnaire. This shows how crucial the building process was for these international students. If they had followed traditions and submitted only one piece of work (and this could include the formative aspect of the research proposal), their experiences could have been much different. These students may not have achieved the overall success and satisfaction they desired. Within the innovative approach applied, the students had a chance to develop and adapt, and this was reflected by the final questionnaire and interviews. This is also supported by an increase overall in the average grade of each student.

In terms of nationality, it may not be surprising that Chinese students highlighted more difficulties with transition into UK studies, had greater concerns over how challenging the assessments would be, and struggled more with understanding their lecturers. However, empirical evidence is lacking in terms of tracking and understanding these issues. This was significant, for example, because Chinese student concerns over how challenging the assessments were fell into line with other nationalities by questionnaire 4. Here there is a sense of how long and arduous the journey could be for a student from China, but not impossible to overcome. Interestingly, the Chinese students recorded the highest averages in terms of happiness with the module, even though they clearly had the greatest issues. This could be put down to cultural differences and how these students respect their teachers, or possibly it could be because they have journeyed much further in terms of overcoming such issues and felt highly rewarded by this. This example is set amidst other distinct findings and it is clear that different nationalities can potentially experience dissertations in a uniquely different way.

The data highlights and supports that innovation is indeed worthwhile within the dissertation experience (Akister *et al.*, 2009; Carroll and Ryan, 2005). This study outlines and examines one such successful approach. Thus, academics in higher education could and probably should confront the difficulties encountered by international students within the dissertation process. After all, the results can potentially increase student success and satisfaction, and this will only serve to improve student feedback and contribute to the reputation of the institution.

**Keywords:** *Undergraduate Dissertations; Higher Education; International Students*

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# **THE GRADUAL INTERNATIONALIZATION PROCESS OF PORTUGUESE COMPANIES DESPITE AN URGENCY TO EXPORT AND INTERNATIONALIZE: ADAPTING TO LOCAL MARKETS AND BEING OPEN TO CHANGE**

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## **ABSTRACT**

This research sought to answer the following question: What are the international strategic practices currently being adopted by Portuguese companies, so that they, in the midst of a much publicized internal economic crisis, may triumph in international markets? Internationalization strategies are of paramount importance to companies from small countries and which are undergoing an economic crisis, such as is the case of Portugal, at the time of writing. According to Sune Carlson, international firm strategies advance according to trial-and-error and by gradually acquiring relevant market information. This rationale was the basis for the very popular Uppsala internationalization process model. Is this currently true also for Portuguese companies, or are they forced to accelerate the process due to rapidly declining domestic markets, occurring in the midst of harsh austerity measures? The study thus involved four case studies and qualitative research. Present in diverse international markets, the case companies chosen carefully plan the whole spectrum of internationalization activities in which they are involved, in order to achieve maximum effectiveness. We conclude that the gradual internationalization process, described in the literature, is being followed by Portuguese companies, despite an additional urgency to export and internationalize, in view of diminishing domestic markets.

## **DISCUSSION**

The internationalization of business is currently one of the most important happenings in World economics (Viana & Hortinha, 2005). In an era of globalization a number of different actors, such as certain internationalization-related professional managers, consultants and researchers, share the view that industrial and strategic analyses should always take into account the global context (Zou & Cavusgil, 1996). The World is ever more connected, with increasingly more exchanges of goods, merchandise, information, and financial and human resources between countries (Rugman & Verbeke, 2004), new opportunities appearing every day, both for companies and for consumers

(Pogrebnyakov & Maitland, 2011). Commercial transactions between countries (Merino & Vargas, 2013) have intensified and firms increasingly look to the market on a global scale (Zou & Cavusgil, 1996). Firms offer products and services at different geographical locations Worldwide in increasing variety (Pogrebnyakov & Maitland, 2011). Internationalization strategies need to be constantly re-defined and updated, especially those related to Research and Development (R&D), production, subcontracting, and commercialization (Zou & Cavusgil, 1996). One of the most important aspects of global strategy is related to marketing, which involves direct interaction with customers and competitors present in specific markets (Zou & Cavusgil, 1996). International marketing can be defined as a “multinational process of planning and executing the conception, price, promotion of ideas, goods and services to create exchanges which satisfy individual and organizational objectives” (Onkvisit & Shaw, 1993, cited in Ilhéu, 2009, p.21), where the focus is that activity, especially commercial activity, occurs in more than one country (Ilhéu, 2009). Indeed, multinational companies tend to operate in a significant number of countries, where they seek to adjust their marketing practices to the local environment (Viana & Hortinha, 2005), be they cultural, administrative, geographic and / or economic aspects that warrant special attention (Ghemawat, 2001). So as to remain at the forefront of different markets, in relation to competitors, it is essential to be flexible and innovative, as products quickly lose market leadership (Rugman & Verbeke, 2004). Only with this capability to develop knowledge (Rugman & Verbeke, 2004), adapting to different markets and providing solutions to customer needs (Viana & Hortinha, 2005), can companies be winners in international commerce (Rugman & Verbeke, 2004). Thus, one may ask the following question: What are the international strategic practices currently being adopted by Portuguese companies, so that they, in the midst of a much publicized internal economic crisis, may triumph in international markets? “For many Portuguese companies, the size of the [Portuguese] market makes internationalizing a necessity” (Luís Portela, of Bial, cited in Ilhéu, 2009, p.13). Furthermore, internationalization strategies are of paramount importance to companies from small countries and which are undergoing an economic crisis, such as is the case of Portugal, at the time of writing. “Significant models in the field of international business describe the internationalization process as a gradual development taking place in distinct stages and over a relatively long period of time” (Melin, 1992, p.102). In the internationalization process model (Johanson & Vahlne, 1977) “a firm gradually increases its international involvement... sequential from the initial export activities to the setting up of foreign production units” (Johanson & Wiedersheim- Paul, 1975, as cited in Melin, 1992, p.103). “Each firm goes through a number of logical steps of international behavior, based on ‘its gradual acquisition, integration and use of knowledge about foreign markets and operations, and on its successively increasing commitment to foreign markets’” (Johanson & Vahlne, 1977, as cited in Melin,



1992, p.103). According to Sune Carlson, international firm strategies advance according to trial-and-error and by gradually acquiring relevant market information (Forsgren, 2002). This rationale was the basis for the very popular Uppsala internationalization process model (Forsgren, 2002; Chetty & Campbell-Hunt, 2003). Is this currently true also for Portuguese companies, or are they forced to accelerate the process due to rapidly declining domestic markets, occurring in the midst of harsh austerity measures? Portugal requested a financial bailout, in 2011, and subsequently acquired a debt of €78 billion (from the International Monetary Fund, the European Central Bank, and the European Commission) which has greatly affected a number of domestic industries, forcing companies to export and internationalize. Accordingly, the objective of this study was to analyse the internationalization strategies and practices currently being adopted by a number of Portuguese companies.

The study thus involved four case studies and qualitative research, in the form of semi-structured interviews, using an interview script, which was divided into two parts: the first with regards to firm activity; the second part with regards to the internationalization process – main markets, entry modes, barriers, destination market selection factors, obtaining market information, strategic effectiveness factors, contact with entities supporting the internationalization process, among others; questions which were based on previous research and surveys by organizations such as AICEP and Deloitte. The interviews averaged 25 minutes in length, were audio recorded, and were transcribed in full. The Portuguese companies studied operate in: 1) The retail industry (accessories); 2) The production and sale of packaging (metal and plastic) and related products and services, including the filling of packages with certain products (e.g. aerosols); 3) The assembling and test of electronic and telecommunications equipment; and 4) Components for kitchen and closet furniture and doors. Present in diverse international markets, the case companies chosen carefully plan the whole spectrum of internationalization activities in which they are involved, in order to achieve maximum effectiveness. The interviewees are decision-makers at these companies (Expansion Director, Human Resource Director, Director/Shareholder, Co-Director, respectively), involved in the internationalization process. A number of practices were reported as a result of the study which may serve as guidelines for other companies seeking to expand their businesses abroad. Thus, knowledge of the local markets being expanded to, having partnerships with other companies in the industry, possessing contacts with professionals and organizations in the business area or market, being resilient and adaptable and being able “to recover quickly from difficulties” (Oxford Dictionaries online), having an innovation capability to produce new products, having managers with experience in internationalization, and focusing on success – in order to become a leader – are some guidelines for other companies similarly seeking to expand to markets abroad. Only with considerable team flexibility, dedication and determination, can companies expand successfully into international

markets. The companies justify the effectiveness which they achieve in their internationalization efforts as only being possible “with teams capable of studying the local market, and which try to adapt to the market and be open to change” (Director of Expansion at one of the companies). The Director of Human Resources interviewee stated also that: “only with sure, consolidated steps, can one be successful [in the internationalization process]”. Thus, we conclude that the gradual internationalization process, described in the literature, is being followed by Portuguese companies, despite an additional urgency to export and internationalize, in view of diminishing domestic markets.

**Keywords:** *Case studies, domestic crisis, globalization, internationalization process, Portugal, qualitative methods*

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## THE SPREADING OF THE SHIELD METHODOLOGY TO IMPROVE THE CORPORATE COMPETITIVENESS

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*The abstract is written in a personal capacity and does not bind the Administration to which the author belongs.*

### ABSTRACT

#### PURPOSE

The recent and still on-going world wide economic crisis has caused adverse changes in exposure to psychosocial risks, to such a point that the management efforts are focused on these risks and the means to ensure the health of workers and reduction of expenses - internal diseconomies - for example those relating to sick leave (Houdmont et al., 2012).

Since the nineties (Bertera, 1990), the literature based on empirical research has amply demonstrated that health promotion programs in the workplace improve health benefits for employees and reduce health care costs for the employer, in such a way to prove the link between healthy workplaces and business productivity (Lowe, 2003).

However, a specific application of a cost-benefit analysis to compare business expenses of safety prevention and non-prevention, the latter from non-commercial risks, including psychosocial ones, did not even exist until the advent of the SHIELD methodology (Social Health Indicators for Economic Labour Decisions).

The economic approach of SHIELD is aimed at helping management to adequately develop a risk prevention policy. This was designed and then tested by Golzio (Golzio, 2011; 2014). At the heart of this method lies the reclassification of security expenses across prevention and non-prevention costs. Amongst the latter there are also sanctioning costs, which represent the state's efforts - with the help of public employees to ensure the effectiveness of sanctions, labour inspectors in particular, to avoid through prevention, or substituting the internalising of transfer costs - of external diseconomies - from the company to society at large, which entail in extra profits for the company itself and causes social inequality.

The purpose of this research is to assess the degree of understanding, acceptance and the possible spread of a SHIELD methodology up to a broad level of managers in medium-sized companies, and to also consider and evaluate the possible role, which is played by labour inspectors/health and safety

inspectors, to facilitate implementation of this economic approach as "consultants" to employers/managers.

## DESIGN/METHODOLOGY/APPROACH

After this fairly detailed presentation of the SHIELD methodology, the first part of the research document focuses on the use of the Delphi technique, as previously carried out in order to measure the development of a more complete picture for the health and executive safety program on Health, Work and Well-being (HSE), in terms of promoting management standards (Cox et al., 2009).

The second part of the document provides a detailed example for applying the Delphi technique to promote the SHIELD methodology, by submitting a questionnaire to be completed by employers and/or managers.

The third part of this paper discusses the "consultation" role of State inspectors, which must be properly evaluated in this period of global recession (Vega, 2009). From this point of view a specific training or "education of the stakeholders" (Cox, 2011; 2013) is proposed with the consequent specific roles of inspectors, in order to ensure implementation of the SHIELD methodology.

*The findings feature a comprehensive evaluation of these combined approaches, to effectively implement the SHIELD methodology.*

## FINDINGS

The research, taking into account the great advantage of using SHIELD methodology, above all highlights and analyses two means of promoting this methodology, as detailed previously.

## ORIGINALITY/VALUE

The key original feature of this research is the implementation of the Delphi technique to spread the SHIELD methodology, and to also consider the possible activities of labour inspectors/health and safety inspectors to implement use of this methodology by virtue of specific training.

**Keywords:** *economic crisis. psychosocial risks, workplace health promotion, non prevention corporate costs, cost-benefit analysis, SHIELD, Delphi technique, labour inspectors*

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## **SOCIAL INNOVATION AND HOW MARKETING 3.0 IS CHANGING CUSTOMER RELATIONSHIP MANAGEMENT**

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### **ABSTRACT**

Through this paper the authors seek to provide answers to a series of questions of topical interest and specialized theory regarding the relations between social innovation and new concept of marketing 3.0 in order to learn how marketing 3.0 is affecting and transforming the concept of Customer Relationship Management. In the last years, customer expectations have changed as well as they see the products and services. Companies should change their optics and concentrate on customers from other perspectives than they did until now. The results should be social satisfaction and a good relationship between companies and their customers.

First, the authors will explain the social innovation concept, what it is and how it can be directed to the new concept of marketing 3.0.

Most of the things that are now granted in our lives usually appeared for the first time as an innovation. Geoff Mulgan describes how in specific periods in our history, civil society provided the perfect scene for creating social innovation. The wave of industrialization and urbanization was accompanied by various forms of social enterprise and innovation: building societies, cooperatives, trade unions, etc (Mulgan, 2006).

Social innovation represents all the activities and services that are motivated by the goal to meet a social need and are spread through organizations that have a social activity core. The starting point for innovation is usually an idea or a need that is not being met.

Marketing 3.0 shows that the welfare of consumers and society is the next big challenge for companies. Consumers demand more from themselves and so should the companies do.

The product value is now defined by the consumer. Companies that will adopt the new era in Marketing have bigger missions, visions and values to contribute to the world because they aim to provide solutions that address problems in the society (Kotler, 2010). The new updated version of marketing lifts this concept to the area of aspirations, values and spirits. Furthermore, it perfectly combines emotional size with the human spirit.

Even if the macroeconomic environment changes, the consumer behavior will change too, this leading to changes in the traditional marketing techniques. Over the past 60 years marketing techniques of influencing consumer behavior have evolved from the marketing centered on products (Marketing

1.0) to the marketing focused on consumption (Marketing 2.0). Marketing 3.0 is the stage when companies change their vision from focusing on the profitability to the consumer.

In the industrial era, marketing 1.0 was meant to sell products to all willing consumers wanting to buy them; it was initiated by production technology development. Marketing 2.0 came as a result between information technology and Internet; it represents the fact that the value of a product is established by the consumer and not by the companies, while marketing 3.0 represents a new era where companies are using Business Intelligence (BI) tools to predict and anticipate the need of the consumers.

Since 2000, information technology has penetrated the mainstream market and developed into what is considered to be the new wave technology (Kotler, 2010).

Some characteristics of Marketing 3.0 are as follows (Kotler, 2010):

- Objective: make the world a better place
- Enabling forces: new wave technology
- How companies see the market: whole human with mind, heart and spirit
- Key marketing concept: value
- Company marketing guidelines: corporate mission, vision and values
- Value propositions: functional, emotional, and spiritual
- Interaction with consumers: many-to-many collaboration

Having the above mentioned points, the concept of Customer Relationship Management will change as well. Phan (2010) stated that “Customer Relationship Management (CRM) is a customer-focused business strategy that dynamically integrates sales, marketing and customer care service in order to create and add value for the company and its customers”.

In order to test the three mentioned concepts: social innovation, marketing 3.0 and customer relationship management, the authors propose a research to see if the companies in Romania are prepared to embrace the new era of marketing 3.0 and if they are offering new ideas of social innovation. At later stages, another researches can be done in order to emphasize the differences between different countries in adopting marketing 3.0; for instance: developed countries vs. developing countries.

The authors of the article built a 2.670 contacts database from various industries, different companies, with different functions. A quantitative study will be run through a questionnaire that will be spread through a link via e-mail and LinkedIn network. The database will be first segmented by industry; we can choose industries where we expect that the impact of social innovation is higher and where the adoption of marketing 3.0 has premises to have a higher impact in the first phase (where consumers will be more impacted).

**Keywords:** *social innovation, marketing 3.0, innovation, customer relationship management, customer expectation*

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## **EX-COMBATANTS AS ENTREPRENEURS: SECURING LIVELIHOODS IN WEAK INSTITUTIONAL SETTINGS**

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### **ABSTRACT**

Ex-combatants face a threefold challenge of returning to society when war ends: social, political and economic. In the economic sphere reintegration back into society entails a move away on the part of the combatant from the livelihood support mechanism associated with the militia networks. Instead, as part of economic reintegration, combatants must obtain long-term gainful employment (formal or informal) or initiate other legitimate income-generating activities, which allows them to support him/herself and any dependants (Torjesen 2013). With few employment opportunities readily available and restrictions in access to land, many ex-combatants become entrepreneurs in the informal economy. When doing so they draw on experiences from the conflict years. Even if difficult and traumatic, war experiences often endow ex-combatants with important assets. They enlarge their networks, travel more widely and acquire new skills. At the same time, informal as well as (malfunctioning) formal institutions evolve in the course of war and these pose considerable constraints on entrepreneurs (Berdal and Zaum 2013).

This paper explores the relevance of theories of entrepreneurship to economic strategies adopted by ex-combatants in Tajikistan and Afghanistan. In particular it explores whether findings from other settings with a challenging institutional environments may hold relevance for post-conflict entrepreneurs. One strand of this literature looks at political entrepreneurs and notes that these agents take advantage of their positional power to maximize economic rewards (Kshetri 2009, Stark 1996). This resonates with the situation in many post-conflicts settings where many war-time leaders and former top commanders dominate the political as well as the economic spheres. Similarly to the way the soviet nomenclature successfully transitioned into wealthy capitalists after communism, wartime leaders often successfully transform from military figures to thriving business owners with considerable political influence or position (Torjesen 2012).

The more interesting question, however, may be how the former lower ranking ex-combatants perform as entrepreneurs when initiating their economic activities in the aftermath of war. While the war years offer them some social capital, they still lack the political influence enjoyed by their former commanders: How do these entrepreneurs compensate for weak political clout when attempting to succeed in a skewed post-war market place? The paper highlights mechanisms found among entrepreneurs in other 'high velocity' environments (Wright et al. 2005) and assesses the extent to

which they explain choices made by ex-combatants. Particularly relevant insights from other setting may include, as Wright et al. (2005) highlight: findings on network linkages (Spicer et al., 2000), the usefulness of environmental scanning (May et al., 2000), the need for risk taking (Makhija and Stewart, 2002) and the relationship between institutional transitions and adaptive capabilities (White and Linden, 2002).

The paper ends with a comment that the literature on entrepreneurship so far seems underutilised by organisations and policy makers that attempt to address the plight of ex-combatants. It notes some immediate insights that might be readily assessed and, possibly, acted on by these organisations.

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## FINANCING HIGHER EDUCATION FOR PROSPERITY: A COMPARATIVE STUDY OF TURKEY AND EU

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### ABSTRACT

Nowadays, there is an increasing competition for where to spend scarce public resources in many countries. Designing a higher education system which will lead to a prosperous future involving less poverty and fairer income distribution is costly. Weighting public against private benefits derived from higher education, its costs could theoretically be covered through either full funding of government or self-finance of students or a combination of both. In practice one could find examples of each financial approach but recently in many European countries, national systems and institutions have been initiated some sort of cost sharing scheme involving financial contribution from students or their parents.

For example, in Australia the government has announced in the fall of 2000 that universities would introduced a tuition fees system. For instance, in Germany in January of 2005, after a long debate, the country's Supreme Court decided that individual states could introduce tuition fees. In Sweden, even though public higher education is free, the institutions may charge a small fee. In the United Kingdom, each constituent country sets its own policy and decides its own funding methodology via its individual funding council. Furthermore, there are many other differences between countries in financing higher education system, like credit systems, spending discretion in universities. In this study the theoretical background of the free public education especially free higher education is discussed. Then the findings of the International Comparative Higher Education and Finance Project is compared with statistics belong to Turkish Higher Education System. Comparing the higher education finance approaches pursued in EU and its prospective candidate Turkey, this paper identifies, among others insufficient credit mechanism, lack of autonomy in determining students' fees particularly by public universities and absense of spending discretion in public universities as important shortcomings of the Turkish higher education system.

**Keywords:** *higher education, public finance*

# **FACTORS SHAPING YOUNG TOURISTS' IMAGES OF VARIOUS TOURISTIC DESTINATIONS: A COMARATIVE STUDY IN GREECE, ISRAEL, POLAND AND PORTUGAL**

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## **ABSTRACT**

## **RESEARCH AIMS**

The main goals of the study in progress are: (a) learn about the image of four countries - Greece, Israel, Poland and Portugal - as foreign travel targets in the eyes of young Greeks, Israelis, Poles and Portuguese; (b) examine its impact on their willingness to travel and their actual choice of tourist destination; (c) elucidate the effects of contextual factors such as cultural values, prior traveling experience, sources of travelling information and the use of social networks (such as Facebook) on shaping the image and intention to travel to each of the four destinations and (d) examine the attitudes towards risk taking of young Greeks, Israelis, Poles and Portuguese with regard to their travelling abroad. The study seeks to discern similarities and differences in young tourists' perceptions with regard to the four travelling destinations.

## **THEORETICAL BACKGROUND**

The global economic crisis is impelling countries to promote incoming tourism as one of their leading industries. The number of international tourists has exceeded one billion in the year 2012 and is anticipated to reach well over 1.8 billion by the year 2030 (UNWTO 2013). Concurrently, the number of potential destinations increases every year as more and more countries discover the economic

potential of tourism. In order to understand the choice of a specific destination it is important to explicate the destination selection process (Son & Pearce, 2005). Thus, researchers focused on the concept of *destination image* (Baloglu & McCleary, 1999; Govers, Go & Kumar, 2007; Moura, Gnoth & Deans, 2014; Pike, 2002). The findings point out that the potential destination competes mainly on the basis of the image held by the tourists. Consequently, policy makers in a destination have to invest efforts in creating and projecting abroad a favorable image. In order to accomplish this marketing task, each destination needs a good understanding of its image in the eyes of potential tourists along with a grasp concerning the perceptions of rivalry destinations (Javalgi, Thomas & Rao, 1992).

Several studies revolved around the factors shaping tourists' impressions of destinations. Among these factors were prior traveling experience and cultural values. **Travelling experience** tends to produce a more **favorable image** with regard to the destination and more **tolerant attitudes** of the experienced tourists in comparison to novices (Andreu, Bigne & Cooper, 2001; Beerli & Martin, 2004).

Prior studies examined the role of **cultural values** in shaping tourist destination image. For example, a recent study showed that information displaying incongruent cultural values concerning a destination on a website tended to produce a more favorable destination image in comparison to information portraying congruent values (Moura, Gnoth & Deans, 2014). The authors argue that cultural congruity enhances the familiarity of the user with the destination site, thus reducing possible novelty elements.

Reisinger and Crotts (2009) examined the effects of Hofstede's cultural dimensions on perceptions of touristic destinations. They found differences between tourists from Southeast Asian and Western countries on specific cultural dimensions, such as measures of the value of long-term commitments, respect for the past and tradition, persistence, patience, and social stability of a nation. The study also showed that tourists from the United Kingdom were more individualistic and less risk-averse than all other nationalities.

Other studies focused on the **source of information** as a factor shaping a destination image. Extant findings portray rather equivocal and often contradictory findings in this domain. Hence, the current study attempts to expand knowledge concerning the effects of various sources of information about destinations (e.g., travel-related websites, social networks, local and international news, travel agencies) on destination images in the eyes of young tourists. The current research underscores explicating the effects of **social media** as this is presumably the most frequently used source of information by young tourists.

## HYPOTHESES

- a. Prior experience: Experienced tourists to the four destinations will exhibit more tolerant attitudes towards a destination in contrast with first time visitors. This hypothesis is based on

the findings of Andreu, Bigne & Cooper (2001) that tourists who had previously visited Spain exhibited a more favorable opinion concerning the “value for money” and “culture” than those who had not previously visited Spain.

- b. Sources of information: the impact of the internet (e.g., travel-related websites, social networks such as Facebook) on destination images in the eyes of young tourists is expected to be stronger than the impact of other source of information (e.g., travel agencies, and other media sources). Although, Beerli & Martin (2004) found that the main source of information which influenced the tourists' cognitive image was the travel agency, whereas internet was not a significant factor, we believe that in 2014 (ten years later) the impact of the social networks on attitudes and decision making of young people is much stronger and more crucial than in the past.
- c. Congruent/ incongruent cultural values: perceived incongruent cultural values concerning a destination (in the eyes of a young tourist) will tend to produce a more favorable destination image in comparison to perceived congruent values. This hypothesis is based on Moura, Gnoth & Deans (2014) findings. The authors argue that cultural congruity enhances the familiarity of the user with the destination site, thus reducing possible novelty elements. For this reason, leisure tourism represents a context in which high congruity seems inappropriate.
- d. Cross-cultural differences and similarities among young tourists. On the one hand we expect to find similarities in the main factors affecting young people from different countries to travel abroad, but on the other hand we expect to find different factors affecting the images of destination countries in the eyes of young from different countries. For example, we expect that the factors affecting young Israelis who served in the army to travel abroad will be different from young people from other countries. Since we do not have a solid hypothesis we leave this as an open research question. The same applies to the attitudes towards and willingness to take risks when travelling abroad especially with regard to the Greek and Portuguese young tourists.

## METHODOLOGY

The study is conducted simultaneously in four countries: Greece, Israel, Poland and Portugal. The reasons for choosing these countries are as follows: Poland attempts to increase tourism of young people, especially from Israel as part of the effort to rebuild the relationships between the two countries. Greece and Portugal suffer from economic crisis and in both countries tourism constitutes a significant driving force of the economy. Due to the harsh economic situation, those countries are interested in expanding tourism to new markets including young tourists and Israelis. Israel experiences a protracted national conflict reflected among other negative experiences in a high prevalence of terror, and tourism is one of the main sources of foreign income. In addition the four

countries are represented in EMRBI seeking to extend areas of comparative research. The study focuses on young people - ages 20 to 30. The research takes place in several academic institutions and attempts to recruit matched samples of about 200 students of various academic study areas (women and men) in each country, statistically sampling students through the lists of mandatory classes.

A functionally equivalent self-report structured questionnaire will be administered in each of the countries in their respective languages: Greek, Hebrew, Polish and Portuguese.

At the first step, the data will be statistically analyzed separately in each of the four countries. This phase will yield mainly descriptive statistics. Subsequently, the four data sets will be pooled and advanced statistical analyses will be conducted with the aim to unveil causal relations between variables horizontally across the combined population of students.

Initial results of the comparative study will be presented at the EuroMed 2014 conference.

**Keywords:** *Destination image, Young tourists, Cultural values, Travel experience, Attitudes, Social networks, Greece, Israel, Poland and Portugal*

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## DETERMINANTS OF FIRM COMPETITIVENESS: THE CASE OF MANUFACTURING FIRMS IN GREECE

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### ABSTRACT

**Purpose:** On evidence from Greek manufacturing small, medium and micro enterprises, this study aims at analyzing and modelling determinants of firm-level competitiveness. The study assimilates firm, industry and institutional level, innovation, R&D and technology, elements to investigate their integrated and individual effects on firm competitiveness, while also investigating between factors interconnections.

**Design/methodology/approach:** The study investigates the integrated and individual effects of innovation, R&D and technology at firm, industry and institutional levels on firm competitiveness. At the same time, it investigates interconnections between the former. 400 manufacturing small, medium and micro enterprises from all industry sectors were surveyed. Drawing from previous literature the research instrument was designed to provide evidence on innovation, R&D, inter-firm cooperation as well as institutional and technology related organizational practices and perceptions. Aspects of firm performance and export activity were also considered. Firm competitiveness was measured in terms of profitability, market share as well as cost efficiency. Exploratory factor analysis and reliability analysis were employed for factor extraction and the theoretical model was tested through Structural Equations Modelling analysis.

**Findings:** The findings suggest that all three sets of explanatory factors had a positive impact on firm performance and competitiveness, both individually and on the aggregate. At the same time the estimated model sheds light on the interconnections between factors. Firm – level innovation proved to have the strongest effect, among factors, on firm competitiveness.

**Originality/Value:** The Greek industry is seriously hit by the economic crisis, which is even more the case with the country's manufacturing sector. The originality/value of this study rests upon two pillars. First, this is the first study investigating the effects of firm, inter-firm and institutional level management aspects on firm performance and competitiveness, thus providing policy makers and management with valuable insight on that matter. Second, the study is implemented under severe crisis conditions; thus, providing unique opportunities for creating both practical and theoretical knowledge that will prove useful in the post-crisis era.



**Implications:** The findings have implications for practitioners, managers and policy makers. Managers get valuable insight on the positive effects of innovation, R&D and technology on firm performance when it comes for them to devise strategies towards enhancing their firms' competitiveness. Policy makers should support institutional and inter-firm cooperation and provide support for the application of innovation and new technology. Manufacturing products should not compete on price only but mainly on quality and product differentiation so that manufacturing firms' competitiveness is maintained, imports are substituted, the trade deficit is decreased and subsequently the growth of the manufacturing sector is restarted. Innovation and R&D can successfully contribute towards the formation of competitive advantage in dynamic markets worldwide.

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## **PUBLIC - PRIVATE PARTNERSHIPS WITH EMPHASIS ON FAILED CASES**

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### **ABSTRACT**

According to the Special Secretariat for Public Private Partnership (PPP), PPPs establish a vital modification to the construction of public organization and the establishment of qualitative services to citizens. They usually are long-term contracts, concluded between the public sector and the private one, either for immobile constructions or for delivery of services. PPP is a modern world-wide tool and exemplifies the school of thought in New Public Management (NPM). NPM movement began in the United Kingdom under Prime Minister Margaret Thatcher, so as municipal government to come up against with economic recession and tax revolts.

The success of a PPP contract depends on many factors, such as the completeness of the contract outline and, the accuracy and clarity of the contract terms, and their success is not always guaranteed. There are several examples of failed PPPs, some of which are discussed and analyzed below, in order to discover the reasons of failure and how these can be avoided. A comparison of a successful and an unsuccessful is also given so as to emphasize the importance of proper design of a PPP program. The main questions examined here are: Which are the main reasons behind a failure? How a failure can be confronted by the public sector? Was it the public or the private sector that had the greater responsibility for the failure?

### **LONDON UNDERGROUND PPP, UNITED KINGDOM**

In 1998, the UK Government suggested the renovation of the London Underground using a PPP. In 2002, London Underground Limited (LUL) signed 30-year contracts with the Metronet and Tube Lines consortiums for the maintenance and regeneration of the lines. LUL operated the transport system, whereas the engineering consortiums were responsible for the infrastructure renovation. There were several problems in the conduct of this PPP from its beginning. On one hand, the agreement involved high profits for the consortiums with small amount of risk from their side and contracts with complicated terms. On the other hand, practical problems such as high costs and safety consequences also existed. As a result, in 2007, Metronet visited the administration and the publicly owned Transport for London took over its contracts while two years later, the works of Tube Lines had a funding shortfall and demanded further public money. In May 2010, Transport for London bought out Tube Lines and the PPP efficiently ended and characterized as a non-reciprocal partnership.

## **ARENA ZAGREB, CROATIA**

Arena Zagreb is the largest sports hall in Croatia and it was opened in 2009. The project was established between the City of Zagreb, the Republic of Croatia and the Ingra-TriGranit consortium as a non-reciprocal PPP. The contract between the partners involved the payment of the maintenance costs to Ingra for the next 28 years. In July 2009, the company was already 600.000€ in debt. In order to cover the costs of loans, Arena Zagreb presented events for 71 days. It was expected that the Arena would be employed for 154 days until the end of the first year, but finally it was impossible to produce profit. By the end of the second year, the maintenance costs were 4 times higher than predicted in the contract. Ingra invested for Arena Zagreb and Zagreb Holding, which was the City of Zagreb's municipal company, paid the funds. Ingra decided to close down Arena Zagreb and required at least €4 million in order to open it again. At the end of January 2011, the City of Zagreb and Zagreb Holding covered the debt to Ingra and the Chief of Zagreb's Department for Finance Slavko Kojic claimed that the Arena was too expensive and it could have been constructed for one third of the total cost.

## **COMPARISON OF PUBLIC PRIVATE PARTNERSHIPS OF ROAD CONCESSIONS IN CHILE AND MEXICO**

In this section, a successful PPP taken place in Chile from 1993 till 2001 is discussed and compared with an unsuccessful one taken place in Mexico during the years 1987 and 1995. In the first case, Chile was awarded with 21 road concessions that worth \$5 billion on a competitive basis. The bidding started with smaller projects, in order to research the market and decrease the risk for the private sector. The bidding achieved to attract 27 consortiums and more than 40 Chilean and foreign companies from 10 different countries. The specific program was characterized as transparent and competitive, with just one minimum revenue guarantee. This PPP turned to a success because the procurement process was transparent and the Government made adjustments as the program was developed. In addition, the project was focused on creating public awareness (tolling culture) and managed to attract international firms that brought finance and credibility.

In the case of Mexico, 52 projects were awarded 25 of which were competitively tendered. By the end of 1995, the 34 projects had reached a financial closure of \$9.9 billion in private investment. The shortest concession period (maximum 15 years) would win, but this action would lead to very high tolls. As a result, the road concessions were bound to have a parallel toll free road. The overrun average of construction cost was 25% and average actual revenues were about 30% below forecast. Only 5 of the total projects met or exceeded targets and, as a result, the average of the toll road fee was increased. The government took over 23 projects and paid outstanding debt to Mexican Banks and to

construction companies. The reasons for the failure in this case can be tracked in the combination of small contract duration and low traffic resulted in high tolls, the existence of free roads contributed to financial distress of concessionaires and, the program resulted in massive Government bail-out.

## CONCLUSION

In this submission, one case of successful PPP and 3 cases of failed ones are analyzed, in order to find out the reasons for this failure. The main result of this research is that the reasons for a PPP failure may vary. They may be attributed to inadequate or non-existent feasibility studies, including unrealistic traffic forecasts and undefined public contribution of funds. Or, they can be a consequence of reasons such as: a poor legal framework and enforcement, a weak institutional capacity and PPP strategy, lack of thorough financial and economic analysis, an inappropriate sharing of risks or, lack of competitive procurement and the public resistance.

So, PPPs should not be presented as the only solution for public sector facing budget limitations. Instead, every time the organizational and economic choices of PPPs should be examined carefully and, the real added value over other choices should be given. An influence, according to the regulations and managerial implications of NPM, could positively affect and even improve failed cases of PPPs. This can be a subject of future study on other kinds of PPPs.

**Keywords:** *Principles of Management, Public and Private Partnerships, Special Secretariat for PPPs, contract, failed cases.*

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## **UPSTREAM PETROLEUM INDUSTRY” OR “DOWNSTREAM PETROLEUM INDUSTRY**

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### **ABSTRACT**

Cyprus is located at the crossroads of Europe and the Middle East and its strategic location has made it a reputable international business and services center. In 2004, Cyprus became a full member of the European Union (EU). In January 2011, Noble Energy announced the discovery of one the largest offshore natural gas reservoirs in the world, near Cyprus (offshore Israel) which would benefit Cyprus as well as Europe. The oil and gas industry has grown strongly over the past decade and its outlook is equally positive especially in the eastern Mediterranean areas. The natural gas revenue can change the national economy and could potentially have an impact on the people's livelihood. According to Cyprus government officials, the recent findings of the natural gas could strengthen the country's financial position, wealth, and standard of living of Cypriots in the near future. But is Cyprus going to achieve this economic growth? Reviewing the past and present studies of the oil & gas countries shows that many countries, after finding oil and natural gas economically collapsed(Ex: Dutch disease) but, there are also many countries that had economic growth. What is really the reason behind these two different results?

Norway is one of the most famous examples of the oil & gas countries with economic growth, Norwegians have been enjoying a high standard of living for many years which is not only due to the country having oil and natural gas deposits, but also because of Norway developing the “Science of using oil & natural gas”.

The oil & gas sector is operating in an environment of unpredicted opportunity, mixed with a high degree of volatility and risk. Therefore the science of using oil and gas which makes a solid innovation strategy on the ways of adding value to the oil and natural gas will help the country to be different in its competitive position. According to Porter, the value chain is a device that helps to identify the independent, economically viable segment of the industry. In every industry there are various activities that must take place to transform inputs of raw materials, knowledge, labor, and capital into end products purchased by customers. The oil and gas value chain has three main segments: Upstream (Exploration and production); Midstream (Transportation and Trading); and Downstream (Refining and Marketing). The industry value chain starts with exploration and ends with products sold to consumers such as gasoline, heating oil, natural gas for heating and power generation, and thousands of petrochemical products. Some countries which have oil and gas reserves

try to be competitive in the upstream industry and some others in the downstream industry but what about Cyprus? Can Cyprus be a competitive player in its oil & gas downstream industry?

As was mentioned before Norway is one of the headline countries that by achieving the science of using oil & gas, has gained and continues to gain profits from its oil and gas industry. The fact that oil & gas countries can gain profits from selling the oil and gas is obvious but the competitive advantage will appear when a country can build a strong industry which focuses on selling petrochemical products. Therefore, the main aim of this paper is to indicate the role of Cyprus's upstream and downstream petroleum industries and to determine ways for adding value to the Cyprus's natural gas.

Following the aim of the study the objectives are to study and review the past and present literature of the oil and gas countries which have been successful in developing a competitive upstream or downstream industry, especially Norway, and comparing them to Cyprus in order to indicate investigating in which industry is more possible and profitable for Cyprus as a competitive advantage. According to the aim and objectives of this study, inductive approach is going to be applied. The structure of this research is not numerical so qualitative information and primary data focusing on in-depth interviews will be used as well as getting help from secondary data.

**Keywords:** *Oil and Natural Gas, , The Since of using Oil & Gas, Competitive Advantage, Value Chain, The ways of adding value to Oil & Gas ,Government, Management ,Income, Growth GDP, Public Wealth, Natural Resources & Renewable Energies*

## **FAMILY OWNERSHIP AND MODES OF INNOVATION: THE CASE OF SOUTHERN NORWAY**

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### **ABSTRACT**

Our focus is on innovation and development in traditional industries in Agder, a region in the southern part of Norway; one of the most heavily burdened labor-cost countries in the world. Despite the cost challenges, the firms in the region have maintained their international competitiveness in heavy and other traditional industries over a prolonged period of time, through good and bad economic climates, and have avoided the exodus experienced by other superficially similar regions. A substantial portion of these firms are family owned. More specifically, the paper will present a case study from the Agder region, including empirical data from 220 of the region's firms, in six separate industrial branches encompassing the extreme shock period of 2006-2012. The study also includes 20 in-depth interviews focusing on the effect of family ownership on the modes of operation and innovation, as well as economic development. Our main research question is whether family ownership affects the modes of operation and innovation and hence, enhances competitiveness in certain industries.

### **INTRODUCTION**

This paper analyzes how firms innovate to remain competitive in traditional industries, with a specific emphasis on modes of innovation in family firms. According to Jensen et al. (2007), firms organize their innovation strategies along two primary axes. The first, the Science, Technology, Innovation method (STI), is an approach where the research project is the starting point for the process of innovation, either within the firm or through cooperation with universities or research institutes. An alternative innovation approach, Doing, Using, Interacting (DUI), lends itself to innovation where product and process learning occurs on the job and through interactions with the customer in order to customize or develop a product. Critical factors to the success of DUI are a highly skilled workforce, flat organizational structure, and decentralized responsibility, in addition to demanding customers and suppliers. Isaksen and Karlsen (2010) maintain that firms' that distinguish themselves concerning innovation combine the STI method of innovation with the DUI type, in a so-called Complex and Combined Innovation (CCI). Our findings propose that family firms tend to innovate in the DUI or CCI modes of innovation, focusing on existing knowledge within the organization in combination with external partners and networks.



## **THEORETICAL FRAMEWORK**

In the analysis on how family firms operate and innovate, we will propose a theoretical construct derived from social capital theory focusing on; social reputation and responsibility, trust, social relations, shared visions and knowledge (Granovetter, 1985; Burt, 1992). Arregle et al. (2007, p. 77) describe family social capital as “one the most enduring and powerful forms of social capital”. In an innovation context, one could then argue that the social capital in family firms can contribute positively in responding to changes in the business environment. Adler and Kwon (2002) state that social capital may affect resource exchange on different levels enhancing the creation of intellectual capital, inter-firm learning, supplier interactions, product innovation, and entrepreneurship. In addition, perspectives developed from analyses on the German Mittelstand will be discussed; focusing on ownership, long term perspectives, local commitment and workforce, to mention some (Simon, 1992; 1996; 2009). Based on the special characteristics of the family firm we also discuss different modes of innovation in line with the framework presented by Jensen (2007) and Isaksen and Karlsen (2010), analyzing the special characteristics of family firms into this innovation framework.

## **DATA AND METHOD**

We employ proprietary financial and governance data composed of multiple variables covering the empirical characteristics of 220 of Agder’s firms in six separate branches from 2006-2012. The chosen branches can be classified as traditional industries like: 1) the process industry, 2) the oil- and gas-extraction equipment and machinery industry, 3) the leisure boat industry, 4) the mechanical industry, 5) the wood processing and wood working industry, and 6) the food processing industry. Also, we have conducted 20 in-depth interviews with owners and/or top managers to obtain a better understanding of how family firm characteristics affect the innovation process in these firms. Here we focus on tacit knowledge, knowledge sharing and development, effects of organizational structure, management and leadership, long term perspectives and traditions, as well as the owners’ commitment to the local community.

Our main research questions are:

- 1) Does family ownership affect the way firms operate and innovate?
- 2) Are there attributes within the family ownership structure that nurture special modes of innovation?
- 3) Are there some industries where family ownership appears to enhance innovation and competitiveness more than others?

## FINDINGS AND CONCLUSION

In this paper we focus on how the attributes of family ownership like; long term traditions and perspectives, the local community, organizational structure and other family firm characteristics, affect the modes of operation and innovation. Even though firms innovate differently we find that the family firms in our sample tend to have more incremental innovations in line with the Doing, Using, Interacting (DUI) method, compared to the more research based methods of innovation. Furthermore, we find that family ownership seems to be an asset within some industries. This especially seems to apply to the industries we can define into the “Mittelstand framework”; where focus is on combining increased competitiveness through new development with the maintaining of long term local traditions. One of the clusters within the mechanical industry in our sample is the Lister Alliance and their slogan is: “Deeply rooted – always moving”. This gives a description of how many of these firms work with innovation.

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## STRATEGIC AGILITY AND MERGERS AND ACQUISITIONS PERFORMANCE

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### ABSTRACT

For the last three decades, the management literature has been trying to explain the paradox of the dismal performance track record of both cross-border and domestic mergers and acquisitions (M&A) vs. their increasing activity in terms of the number of deals and the volume of involved capital. Recent meta-analytic studies on acquisitions (King, Dalton, Daily, & Covin, 2004; Stahl and Voigt, 2008) have not provided clear answers for why M&A remain popular despite of their high failure rate. A possible answer to this paradox is that the existing research on M&A provides a limited and insufficient understanding of the phenomenon, especially concerning the post-merger integration process (Gomes, Weber, Brown, & Tarba, 2011; Weber, Tarba, & Reichel, 2011). These findings pose a great challenge for researchers in the field of M&A and suggest a need to continue to research in-depth and in-breadth the parameters that influence the overall M&A success (Weber et al., 2011).

To address this, in our research, we use the concepts of strategic agility. While the concept of strategic agility has received increasing attention, it has neither received consistent treatment nor clear articulation of its effects on a firm's performance (Weber and Tarba, 2014). Instead, strategic agility has remained an elusive term with many definitions across various situations. The first contribution of this research is the clarification of the concept of strategic agility based on common theme that emerged in recent years.

Second, we will use the concept of strategic agility to develop theoretical explanations for the current paradox on M&A that was described above. More specifically, we show that acquisition processes and outcomes vary primarily based on whether the acquirer possesses strategic agility in terms of:

- a. Identifying suitable targets, and,
- b. Integrating them with the acquiring firm to create value.

This research provides clear directions for future research and managerial implications for executives to improve M&A performance.

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## HOW MENTORING CAN IMPACT WOMEN'S USE OF VOICE

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### ABSTRACT

The aim of this paper is to contribute to the explanation of predictors of voice.

In this paper we report the findings of a study on the impact of mentoring on an individual's identity and her use of voice or silence in different situations.

An individual's identity focuses on the question of *who I am* in relation to others (Goffman, 1959; Mead, 1934; Whetten and Godfrey, 1998) as well as *who I would like to become* (Markus and Nurius, 1986). We argue that individual identity is important at an organizational level in defining a person's work-related self, which in turn is related to the use of voice in an organization.

Mentoring provides a form of social support *from* an individual with advanced experience and knowledge (the mentor) *to* a less experienced and knowledgeable individual (the protégé) for the purpose of advancing the protégé's development and career (Sosik and Lee, 2002).

The paper reports on a qualitative study of a pilot mentoring program spanning across two Norwegian heavy industry clusters. The program was specifically developed for this group starting with 10 protégés and their mentors. The protégés were middle managers, eight women and two men; five of the mentors were women, five were men.

Findings of the research indicate that mentors contributed to protégés' concept of self (identity), for example, in terms of becoming more strategic as managers. In terms of voice, they gained an understanding of the use of upward communication including issue selling (Dutton *et al.*, 2001) and silence (Morrison and Milliken, 2000, 2003) and became aware of tactics and targets of voice such as how to frame information, when, where, with whom to voice their views or concerns (Dutton *et al.*, 2001; Piderit and Ashford, 2003).

By including individual identity, the paper contributes to the explanation of predictors of the use of voice or silence in Morrison's 2011 model, as well as how voice or silence can be used in an organization. The paper also contributes to our further understanding of the tactics and targets of voice in issue selling upwards (Dutton *et al.*, 2001; Piderit and Ashford, 2003).

**Keywords:** *Mentoring, Individual Identity, Voice, Silence*

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## THE DETERMINANTS OF HRM PRACTICES' TRANSFER PROCESS WITHIN MERGER AND ACQUISITION

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### ABSTRACT

The question of how practices travel from one organization to another has recently attracted growing attention of several social sciences (Guillen, 2001; Meyer et al, 1997), technology (Rogers, 1995) and management (Weber and Tarba, 2010; Weber and Fried, 2011; Weber, Rachman-Moore and Tarba, 2012; Teerikangas, Very and Pisano, 2011; Kostova and Roth, 2002; Djelic, 1998; Gooderham et al., 1999; Flood et al., 2003; Gamble and Huang, 2009; Yahiaoui, 2010) fields. However, research on intra-organizational knowledge transfer and especially the HRM practices transfer are much more abundant than those conducted on inter-organizational context (Weber, Rachman-Moore and Tarba, 2012; Ahuja and Katila, 2001; Bjorkman et al, 2007; Ranft and Lord, 2002; Sarala and Vaara, 2010; Haleblian et al. 2009). Although one of the main objectives of M&A is to seize the synergy potential through knowledge transfer (Weber, 2012), few studies point on the complexities of this transfer and mixed results (Junni et al., 2012; Weber, Tarba and Rozen Bachar, 2011)

The recent increase in number of mergers and acquisitions versus their high failure rate (Weber, 2012) as well as the ambiguity, difficulties and uncertainty (Björkman et al, 2007) caused by the integration of two separate organizations make the study of knowledge transfer necessary and urgent. Recent studies have point on the importance of HRM practice transfer to acquisition performance and the need for more studies (Birkinshaw et al., 2000; Weber and Fried, 2011; Weber et al., 2012). . For example, what are the main characteristics of HRM practice's transfer process? What are the similarities and differences between the HRM practice's transfer and the knowledge transfer process? How these practices are articulated, re-contextualized and re-used by the acquirer and the target? What about the factors that may influence the integration of these practices within a new group?

According to Junni et al (2012), knowledge transfer in general can be affected by four main categories of variables: knowledge characteristics, sources and recipient characteristics, such as similarities and differences, absorptive and disseminative capacity (Gupta and Govindarajan, 2000; Cohen and Levinthal, 1990), and the relationships between them and knowledge integration mechanisms. These may be transferred by such practices as training, autonomy and communication (Weber and Tarba, 2010) or sociocultural mechanisms such as values and shared identity. For example, some of those can be done by joint training program (Breseman et al., 1999) and use of expatriates. Based on these four

categories, Junni et al (2012) described factors affecting knowledge transfer in a specific context of M&A.

Category	Variables and details	Authors
Knowledge characteristics	Different functional knowledge, tacitness, social embeddedness, specificity, causal ambiguity	Lam, 1997 ; Bresman et al, 1999 ; Schoenberg, 2001 ; Ranft and Lord, 2002
Sources and recipient characteristics	Differences of knowledge bases, knowledge asymmetry, retention and complementarity, strategic similarity, Age of company, target autonomy, cultural differences (national and corporate)	Lam, 1997 ; Ranft and Lord, 2000 ; Ahuja and Katila, 2001 ; Capron et al, 2001 ; Castro and Neira, 2005 ; Westphal and Shaw, 2005 ; Tsang, 2008 ; Zou and Ghauri, 2008 ; Vaara and Monin, 2010
The relationship between Source and recipient	Direction of knowledge transfer, fear of exploitation and contamination, acquisition motive, target autonomy, affinity for partner, respect, trust, positive attitude, identification, perceived expertise of source by recipient, social conflict.	Lam, 1997; Capron, 1999; Empson, 2001; Castro and Neira, 2005; Schweizer, 2005; Westphal and Shaw, 2005, Tsang, 2008, Junni and Sarala, 2011; Junni, 2011.
Management (Knowledge integration mechanisms)	Communication, integration speed, norms, procedures, normative integration, interaction (formal/informal), group/individual work, incentives, expatriate deployment, integration (cultural/operational)	Ranft and Lord, 2000 ;Junni and Sarala, 2011 ; Sarala and Vaara, 2010; Westphal and Shaw, 2005)

**Table 1 An overview of empirical knowledge transfer studies in M&A (adapted to Junni and al (2012, p 113-117))**

It is interesting that certain factors influencing the knowledge transfer in Merger and acquisition are common to those highlighted by previous research made on managerial practices' transfer within Multinationals such as organizational identification, trust, integration, complementarity, relational context (Kostova and Roth, 2002), negotiation and conflict resolution abilities (Leyland, 2005), intensive communication, national culture and strategic similarities (Flood et al., 2003; Bartlett et Ghoshal, 1988). However, the relationships between the source and the recipient of knowledge are more complex in M&A than in other situations such as multinational organizations. For example, knowledge transfer process needs a climate of affinity, mutual respects and trust (Junni and Sarala, 2011; Bresman et al, 1999; Cabrera and Cabrera, 2005) that are often missing in M&As due to culture clash, stress and negative attitudes, lack of cooperation and commitments, and high level of turnover of top executives and key talents after the merger (Weber, and Drori, 2011; Weber, Shenkar and Raveh, 1996; Weber, 1996). The characteristics of the acquirer and the target are also fundamental in the knowledge transfer process, such as the absorptive and the disseminative capacities that can affect the effectiveness of the knowledge transfer process (Junni et al., 2012).



According to these various researches, we can notice that a special attention was paid to the acquirer, the target firm in a knowledge operation, the interests of the knowledge transfer and the factors that would, influence this process. However, most of these researches were made on knowledge transfer and no one on HRM practices within Merger and acquisition. Several factors that would influence the transfer process were highlighted but no research describes the conditions, the legitimacy and the obstacles that encounter the HRM practices traveling between the two entities. We still do not have any idea about the actors involved in the process and the interaction between the actors of both units. Moreover, the empirical evidence is not clear-cut. Thus, the aim of this paper is to deal in depth with the HRM practices' transfer process in Merger and acquisition. We first focus on the literature review on the knowledge transfer process in Mergers and Acquisition then on the HRM practices' transfer process in Multinationals. Thereafter, we compare the two literatures, and highlight the similarities and differences of the factors influencing the transfer process and the role played by the actors in the re-contextualization and re-use of selected practices. We rely on this comparison to formulate research proposals that aim to examine the determinants of HRM practices' transfer process in mergers and acquisitions. These proposals will be used in the future for an empirical study.

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## "EXPLORING CROSS-CULTURAL ADJUSTMENT AND MOTIVATION OF EXPATRIATES IN THE EUROPEAN PARLIAMENT"

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### ABSTRACT

Throughout the past decade, there has been a growing body of literature about persons that were not sent abroad by a parent company but who individually chose to expatriate. The Self-Initiated Expatriates (SIEs) constitute a much bigger and therefore more influential group than Assigned Expatriates (AEs), (Carr et al, 2005). However, they still remain "*an almost hidden aspect of the international labour market*" (Jokinen et al, 2008), increasing pressure for HRM to recognize the emerging reality and implement suitable practices to ensure employees' performance at expected standards. Most studies that focus on expatriate assignments compare differences of AEs and SIEs based on individual backgrounds, task related variables and lifestyle. However, there is evidence suggesting that such broad categorization of expatriates is simplified since, especially within the SIE category, there exists a number of subgroupings with different characteristics (Suutary and Brewster, 2000). Thus, among SIEs literature, research focuses mainly on multinational companies leaving other subcategories, such as those working within international organizations such as the European Institutions, un-researched, (Dabic, et al, 2013).

### PURPOSE

The objective of this exploratory study is to present new information, based on empirical research, on this largely unstudied subgroup by examining what influences the decisions of European citizens coming from 28 different Member-States, to expatriate from their country of origin and come to work in the European Parliament as well as their cross-cultural adjustment. A deeper understanding of the motivational factors to expatriate as well as of work and social adjustment may have useful implications for effective cross cultural human resources management.

### DESIGN/METHODOLOGY/ APPROACH

This exploratory study is a web based survey among European Parliament employees. The online survey was considered suited since employees are located in three places: Brussels, Strasbourg and Luxembourg. Participants, selected to cover a wide range of nationalities, were informed for the link

by email. The research instrument, a three-part structured questionnaire in English, included thirty-five (35) questions. The first part explored demographic information including how long employees had worked in the European Parliament and their intended length of stay. The second part explored motivation using a Likert type scale and it was based on a selection of factors presented in the literature, particularly on Doherty et al. 2011. The third part, explored cross-cultural adjustment of participants (general, interaction, and work adjustment using Black and Stephens's scale, (1989).

## FINDINGS

In this study, the preliminary results are presented based on a limited sample of 43 returned questionnaires (from 13 nationalities) out of the 57 which were initially sent out. The analysis presents some indications concerning self-initiated motivation and adjustment, some of which exhibit similarities with findings from other studies on this group, while others challenge existing research.

Thus, regarding motivational factors, it seems that SIEs in the European Parliament were mostly motivated by their "interest to the specific job offer", "potential for skills development" as well as "professional challenge". This shows that the employees are motivated to work and learn, since they like their job and want to develop their skills, encompassing thus, the cosmopolitan focus of viewing this experience as an opportunity for personal development (Inkson and Myers 2003; Mayrhofer, et al. 2008) that distinguishes SIEs from AEs, but also exhibiting traits of self-directed career management (Doherty et al. 2011). In addition, slight differences were noticed in the prioritization of motivational factors among men and women. Men rated "personal development" as most important motivational factor whereas women rated "the specific job they were offered". This could imply that women were more interested in the job itself, pointing to limited career possibilities at home, whereas for men maybe the job was just an "instrument" in order to achieve "personal development".

These findings are also comparable with research results by Petrokopi and Froese, (2009) supporting the idea that SIEs *"tend to perceive their overseas experience as a means of self-development or part of some personal agenda."* Doherty et al (2011) also found that expatriates are often motivated *"by the desire for adventure and exploration, as they want to increase their self-knowledge and learn about the world."* Dickmann et al. (2008), believes that typical motives of the decision to expatriate are linked to the job that has been offered, the opportunity to have new experiences and the financial impact of working abroad. Additionally, Stahl and al. (2002) found that career development and job issues were the principal reasons for accepting a work abroad, whereas Tung's findings (1998) indicated that expatriates value the opportunity to acquire new skills and experiences as motives for expatriation.

As far as cross-cultural adjustment is concerned, the analysis showed that SIEs in the European Parliament were averagely adjusted and that their interaction adjustment with host country nationals was rated low. The majority associated with expatriates from other nationalities, suggesting that nationality is not a significant factor in shaping expatriates' task-related informal networks (Suvarierol, 2011), as well as social interactions. This is also evident in participants' responses regarding interactions with colleagues, in which the vast majority reported getting along very good with their colleagues, which implies that the diverse cultural backgrounds are not perceived as a barrier to creating a common working culture and emphasizing career orientation and positive attitudes towards the new work role.

Increasing cross-cultural adjustment is important because it has been found to increase job satisfaction and performance, as well as to reduce the turnover of expatriates (Bhaskar-Shrinivas et al.2005). Training and mentoring as well as providing support in non-work related issues will help organisations' international staff be effective in a shorter period of time. More research in that area would be important for recruitment services and human resources departments suggesting different personal drivers that may have an impact on SIEs cross-cultural adjustment.

## LIMITATIONS/IMPLICATIONS

The study adds to the literature on self-expatriation supplying tentative evidence on the existence of a distinct category of "officials" working in international organizations that combine characteristics of self and assigned expatriates. These "officials" being highly educated, younger and more cosmopolitan, feeling at ease to interact with expatriates from other nationalities are motivated more by career and personal aspirations than economic benefits. However, the relatively small sample raises concerns with regards to the risk of creating a generalization.

## ORIGINALITY/VALUE

This study, being the first to present data about those on self-initiated foreign work experience in the European Parliament, contributes to the on-going research on self-initiated expatriates in international political institutions.

**Keywords:** *Expatriates; Self-Initiated; Cross-Cultural adjustment; European Institutions; European Parliament; HR practices; International HR.*

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