

Journal of Business and Economics

Volume 6, Number 2, February 2015



Editorial Board Members:

Prof. Jeong W. Lee (USA)
Prof. Marc Matthias Kuhn (Germany)
Prof. Mostafa M. Maksy (USA)
Dr. Eugene Kouassi (Abidjan)
Prof. Stela Todorova (Bulgaria)
Prof. Georg Friedrich Simet (Germany)
Dr. Athanasios Mandilas (Greece)
Dr. Eugenia Bitsani (Greece)
Dr. George M. Korres (Greece)
Dr. Somesh K. Mathur (India)
Prof. Iltae Kim (Korea)
Dr. Masud Chand (USA)
Dr. Maria Eugénia Mata (Portugal)
Prof. Ulf-Göran Gerdtham (Sweden)
Prof. Boban Stojanovic (Serbia)
Dr. M. A. Sherif (UK)
Dr. Gergana Jostova (USA)

Prof. E. Bruce Hutchinson (USA)
Dr. Francesco Vigliarolo (Argentina)
Prof. Myro Sanchez Rafael (Spain)
Prof. Almira Yusupova (Russia)
Prof. Milton Iyoha (Nigeria)
Prof. Juan-Antonio Mondéjar-Jiménez (Spain)
Prof. Adam Koronowski (Poland)
Dr. Jonathan K. Ohn (USA)
Dr. Adiq Kausar (Pakistan)
Prof. Alejandro Prera (USA)
Prof. Richard J. Cebula (USA)
Dr. Jamal Mattar (Belgium)
Dr. Brian W. Sloboda (USA)
Prof. Yezdi H. Godiwalla (USA)
Prof. Jin Hyo Joseph Yun (Korea)
Prof. Christian Seiter (Germany)

Copyright and Permission:

Copyright©2015 by Journal of Business and Economics, Academic Star Publishing Company and individual contributors. All rights reserved. Academic Star Publishing Company holds the exclusive copyright of all the contents of this journal. In accordance with the international convention, no part of this journal may be reproduced or transmitted by any media or publishing organs (including various websites) without the written permission of the copyright holder. Otherwise, any conduct would be considered as the violation of the copyright. The contents of this journal are available for any citation. However, all the citations should be clearly indicated with the title of this journal, serial number and the name of the author.

Subscription Information:

Price: US\$800/year (print)

Those who want to subscribe to our journal can contact: finance@academicstar.us.

Peer Review Policy:

Journal of Business and Economics (ISSN 2155-7950) is a refereed journal. All research articles in this journal undergo rigorous peer review, based on initial editor screening and anonymous refereeing by at least two anonymous referees. The review process usually takes 4-6 weeks. Papers are accepted for publication subject to no substantive, stylistic editing. The editor reserves the right to make any necessary changes in the papers, or request the author to do so, or reject the paper submitted.

Database Index:

Journal of Business and Economics (ISSN 2155-7950) is indexed by SSRN, CrossRef and Ulrich now.

Contact Information:

Manuscripts can be submitted to: economics@academicstar.us, jbe@academicstar.us or andy@academicstar.us. Constructions for Authors and Submission Online System are available at our website: <http://www.academicstar.us/onlineupload.asp?shaction=show>.

Address: 228 East 45th Street, Ground Floor, #CN00000267, New York, NY 10024

Tel: 347-566-2153, 347-230-6798 Fax: 646-619-4168, 347-426-1986

E-mail: economics@academicstar.us, jbe.academicstar@gmail.com



Journal of Business and Economics

Volume 6, Number 2, February 2015

Contents

Business Administration and Business Economics; Marketing; Accounting

- Proximity of Retailer Locations under Informative Advertising** 231

S. Chan Choi

- Accounting Monologue: Management Accounting Use in Micro and Small Companies
according to Bakhtin's Communicational Process** 244

*Patricia Villa Costa Vaz, Marcia Maria dos Santos Bortolucci Espejo, Silvia Pereira de Castro Casa Nova,
Simone Bernardes Voese*

- Business Models Portfolios in International Markets: Management, Network Influence and
Relationship Potential Effect** 254

Mariusz Sagan

- Female Perceptions of Entrepreneurial Success Factors** 264

Ruth Alas, Sinikka Vanhala, Tiit Elenurm, Elizabeth J. Rozell, Wesley A. Scroggins

- The Relationship between Corporate Social Responsibility and Competitiveness in Mexican SMEs** 276

Sandra Yesenia Pinzon Castro, Gonzalo Maldonado Guzman, Maria del Carmen Martinez Serna

- Finding....ASEAN MRA for Tourism Professionals** 286

Maria Christina Gaerlan Aquino, Lilibeth Corro Aragon

Cultural Economics; Economic Sociology; Economic Anthropology

- Determinants of Movie Review Ratings — New Method by Using Big Data** 296

Tadashi Yagi, Seiya Murata

Financial Economics

- Family Impact on Capital Structure: Does Financial Crisis Matter?** 306

Inês Lisboa

- Reflections of the Economic Policies Adopted by Industrial Countries in the Aftermath of the 2008 Global Financial Crisis on Turkey** 317

İbrahim Erol

International Economics and Education

- The Optimal Foreign Entry Mode Choice: The Role of Firm Heterogeneous Capability** 329

Chen Lili, Zhou Mao, Shen Ting

- The Interaction between Exchange Rate and Foreign Direct Investments: Evidence from Turkey** 337

Oktay Kızılkaya, Gülbahar Üçler, Ahmet Ay

- Hofstede in Luxembourg** 348

Ursula Schinzel

- Change the Way Training is Done: Train Me on What I Want to Know** 356

Kristi Dean

Economic Development

- An Analysis of Total Factor Productivity, Factor demand, and Profit of India's Agriculture** 360

Sharmistha Nag, Debarpita Roy, Laxmi Joshi, P. C. Parida, Hari K. Nagarajan

- Retrospective Guerrero Emigration to the United States** 371

Artemio López Ríos, Alejandro Díaz Garay

Regional Government Analysis and Industrial Organization

- Housing Policy as a Part of Urban Regeneration Policy — The Case of Poland** 381

Aleksandra Jadach-Sepiolo, Wojciech Jarczewski

- The Difference between Collective and Individual Culture Based on Leadership, Communication and Interpersonal Relationship** 393

Sellyv Annekinda, Noor Siti Rahmani

Miscellaneous Categories

- Ethics and Professional Conduct for Sustainable Development: A Case of Malawian Construction Industry** 401

Rodrick Lengama Chilipunde, Agnes Kadyampakeni Kaima

Proximity of Retailer Locations under Informative Advertising

S. Chan Choi

(Rutgers Business School, Newark, NJ 07102, USA)

Abstract: When a branded retailer decides to add a new store, one major decision is the distance of a proposed location from its competitors. It is widely believed that one of the advantages of a free-standing location is the absence of nearby competition which a shopping-mall location typically faces. We are interested in examining whether the absence of nearby competition is indeed an advantage when there is a spill-over effect of advertising. The proximity between the two stores affects how much of one store's informative advertising "spills over" to the other store. When the stores are located close to each other, a fraction of consumers who are informed of only one retailer will decide to "shop around" between the two differentiated but substitutable stores. We show that, when advertising is relatively cheap, it can be more profitable to have competing stores located close to each other and let a certain fraction of partially-informed consumers shop around.

Key words: marketing; store location; informative advertising; retailing

JEL codes: M310, M370

1. Introduction

Suppose that a typical consumer needs a new pair of business-casual pants. She would pay attention to promotional mailings and newspaper inserts for product and price information of retail stores in town. Further suppose that she found a nice product on promotion from, say, Express, and decided to visit that store. If the retailer is at a free-standing location around which there is no competing store, she would make a purchase there instead of driving across the town for comparison shopping. But if the retailer is located in a large shopping mall, she would probably (but not certainly) find Banana Republic a few doors away. In that case, it is likely that she would end up visiting both stores for comparison shopping. That is, the former store's informative advertising has a spill-over effect when a competing store is located nearby.

Most branded retail stores are frequently located inside shopping malls in which there are direct competitors located in a very close proximity. This includes such product categories as casual clothing (Gap and Limited), designer fashion (Ann Taylor and Talbots), jewelers (Zales and Kay), wireless phones (ATT and Verizon), beauty shop (Trade Secret and Sephora), and even restaurants (Wendy's and Sbarro's). On the other hand, many of these same retailers can also be found as free-standing stores, which may not have competing stores within a short walking distance. Clustered shopping area can be considered as an intermediate store location between the two, where competing stores are located in varying proximities from each other. When a branded retailer decides to add a new store, its location choices include a free-standing location, a shopping-mall location, or anywhere in

S. Chan Choi, Ph.D., Professor, Rutgers Business School-Newark and New Brunswick; research areas/interests: marketing. E-mail: chanchoi@rutgers.edu.

between. Each of these locations has advantages and disadvantages. For example, a shopping mall location offers heavier consumer traffic, attraction of anchor stores, mix of different merchants, and shared promotion. On the other hand, a free-standing location offers lower rent, more space, and in particular *less inter-store competition*. The conventional wisdom is that when retail stores are located close to each other, say, in a shopping mall, the intense competition will erode profits for both. This paper examines whether the inter-store competition is indeed a liability. Our result shows that it does not have to be, which adds a check mark to the argument for the central retailer location.

2. Literature Review

Store location problem has been extensively studied in the literature. Most studies focus either on the issue of finding an optimal store location in a geo-demographic context to maximize store sales (Nelson, 1966; Drezner, 1994; Durvasula, Sharma & Andrews, 1992) or on the competitive nature of store locations via Hotelling model (Brown, 1989; Mackay, 1972) or the central place theory (Craig, Ghosh, & McLafferty, 1984; Ingene & Lusch, 1981). Ghosh and Craig (1986) propose a conjoint analysis-based approach of selecting service locations. For a review of these methodologies, see Ghosh and McLafferty (1987). A recent empirical approach is proposed by Leszczyc, Sinha, and Sahgal (2004) as an econometric model that assumes consumers' multi-purpose shopping trips to analyze competitive location and pricing decisions of retail grocery stores. Our paper is similar in its problem context to Thomadsen (2007), who examines different location choices of fast food restaurants in an asymmetric competition with differentiated products. In that paper, the size of the total market is the determining factor of different location equilibrium outcome. Our paper also deals with the problem of evaluating store location options for a branded retailer in a specialty product category. However, our model treats advertising as a decision variable in a market that is sufficiently large. Our model is related with MacKay's (1972) notion that introduces comparison shopping behavior in which consumers' store choice decisions are affected by the presence of neighboring establishments. This paper presents a game-theoretic model of advertising and pricing competition to examine the effect of the proximity between two retail stores.

The rest of the paper is organized as follows: The next section presents underlying behavioral assumptions that lead to the specific model structure in Section 3, which presents two models of advertising-price competition and derives their equilibrium solutions. The first is the base model which assumes that the retailers are located sufficiently far from each other. The second model generalizes the first by allowing a varying degree of proximity between stores. Section 4 examines these solutions to derive their implications and summarizes the findings in propositions. The last section concludes the paper and delineates future research topics.

3. Behavioral Assumptions

Two key components of our model are: (a) the informative aspect of advertising and (b) opportunistic comparison shopping among partially-informed consumers, which is related with the distance between competing stores. For specialty goods within a relatively low-to-medium price range, consumers may visit multiple stores for comparison shopping only if competing stores are nearby (i.e., low search cost).

In our duopoly model, the two brands (hence two retail stores) are differentiated along the horizontal dimension that represents a uniform distribution of consumer tastes, and they are positioned at either end of the Hotelling's linear market. Each retailer has two short-term variables: retail price and advertising. The

advertisements are assumed to be informative ones that inform or remind consumers of the store location and its price.

In addition to the taste distribution, consumers are also assumed to be uniformly distributed in a sufficiently large geographical market area so that the distances between the stores and individual consumers are averaged out between the competing retailers. But the main feature of our model is that the proximity between the two stores affects the extent to which one store's informative advertising "spills over" to the other store. When the retailer stores are sufficiently far from each other, partially-informed consumers who are exposed to only one retailer's advertisement would not shop around. However, consumers who are exposed to both retailers' advertisements are informed of both prices and locations. Such fully-informed consumers can do comparison shopping even without having to visit both stores.

On the other hand, when the stores are located close to each other (like in a shopping mall), consumers who were exposed to only one retailer's advertisement may accidentally discover the competing retailer and have an opportunity for comparison shopping. Therefore, there is a certain amount of *advertising spill-over*. Consequently, it may appear that a part of the advertising dollars not only goes wasted but also helps the competitor's business. However, our result shows that, when advertising is relatively cheap, it can be more profitable to have competing stores located close to each other and let *a certain fraction* of the partially-informed consumers shop around. Figure 1 presents a framework of the consumer search and decision making process.

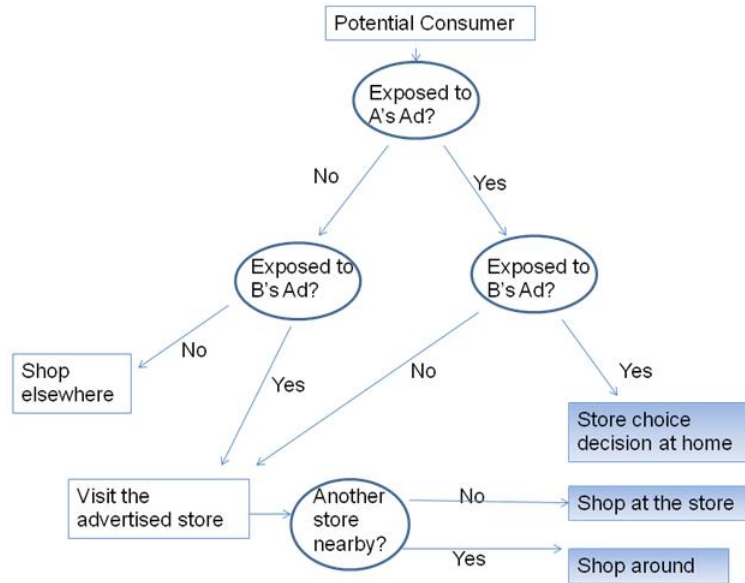


Figure 1 Consumer Choice of a Branded Retailer

4. The Model

Among major factors that influence consumer choice of a branded retail store is their awareness of the store location and its price. In particular, for specialty goods such as fashion clothes and jewelries which are purchased infrequently, the level of informative advertising would be relevant in keeping the brand and its store location on consumers' top-of-the-mind awareness (TOMA). Our model assumes that advertising expenditure is directly related with the probability that any particular consumer is informed of the store. Advertising competition has been modeled in the economics literature as a circular market (Grossman & Shapiro, 1984) or a linear market

(Tirole, 1989). Levy and Gerlowski (1991) applied the linear market model to examine the effect of matching competitor's clause (MCC) policy using price discrimination.

As in Levy and Gerlowski (1991), let ϕ_i denote the probability that any consumer receives a given firm i 's advertisement where $0 \leq \phi_i \leq 1$, which is independent of the consumers' taste distribution. The advertising cost $A(\phi_i)$ is an increasing function of this probability. ϕ_1 and ϕ_2 are independent from each other. Therefore, the potential market can be divided into four segments: those who are informed of either one of the two stores, those who are informed of both stores, and those who are exposed to neither advertisement. The last segment is assumed to be out of the market.

The retail stores know the proportions of the informed consumers, which is a known function of the advertising expenditure. But they cannot distinguish between informed and uninformed consumers; hence price discrimination is not possible.

4.1 No Advertising Spill-over Case

First, consider the case in which the two retailers are located sufficiently far from each other so that a consumer would not casually shop around. The demand for retail store i is derived from two consumer segments. Partially-informed consumers would not engage in opportunistic comparison shopping behavior because there is no other store nearby. That is, consumers who are exposed to only retailer 1's advertising ($\phi_1 - \phi_1\phi_2$) would visit only that retailer and make a purchase without a chance to shop around. However, those who are also exposed to retailer 2's advertisement ($\phi_1\phi_2$) have full information and engage in comparison shopping without the need to visit both retailers.

The retailers are assumed to be horizontally differentiated. This monopolistic competition has been widely modeled using a linear market of unit length, in which the two retailers are positioned at either end of the line segment (Tirole, 1989). Consumer tastes are uniformly distributed along the line segment $[0, 1]$ as shown in Figure 2. A consumer whose taste is located at x will incur a total cost of $p_1 + tx$ for brand 1 and $p_2 + t(1-x)$ for brand 2, where t is the unit cost of the "lack of fit". This parameter is related with the degree of retailer differentiation. Since the consumer will purchase the brand with lower total cost, the iso-cost point can be found by equating the two costs and solving for x , which is $(p_2 - p_1 + t)/2t$. This quantity becomes brand 1's share in the segment that was exposed to *both* retailers' advertising.

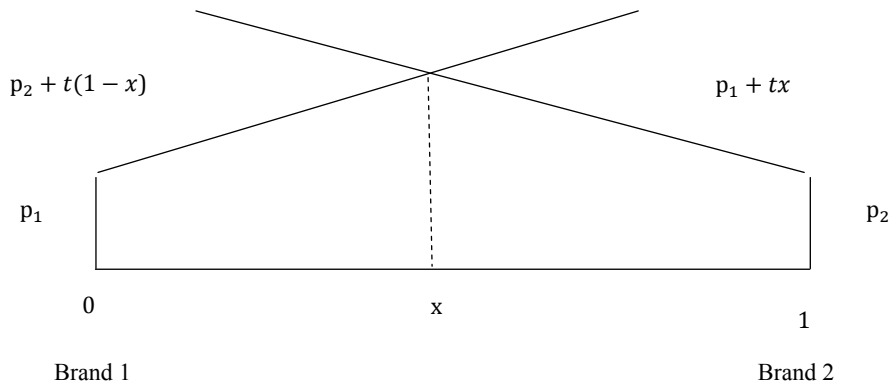


Figure 2 The Monopolistic Competition

$$D_1 = \phi_1(1 - \phi_2) + \phi_1\phi_2(p_2 - p_1 + t)/2t, \quad (1)$$

and with the unit cost of the product c , retailer 1's profit is

$$\Pi_1 = (p_1 - c)D_1 - A(\phi_1). \quad (2)$$

The second retailer's demand and profit can easily be obtained by exchanging subscripts. In the following, we assume a typical quadratic advertising cost function (Tirole, 1989; Levy & Gerlowski, 1991): $A(\phi_i) = a\phi_i^2/2$. The only parameter restriction is $a \geq t/2$, which is needed to satisfy the condition that a probability cannot be greater than one.

Firm 1's first order conditions for profit maximization with respect to price and advertising expenditure are

$$\frac{\partial \pi_1}{\partial p_1} = \phi_1 + (c - 2p_1 + p_2 - t)\phi_1\phi_2/2t = 0 \quad (3)$$

$$\frac{\partial \pi_1}{\partial \phi_1} = p_1 - c - a\phi_1 + (p_1 - c)(p_2 - p_1 - t)\phi_2/2t = 0 \quad (4)$$

Solving (3) and (4) for p_1 and ϕ_1 , we obtain firm 1's reaction functions:

$$\hat{p}_1 = (p_2 + t + c)/2 + t(1 - \phi_2)/\phi_2,$$

$$\hat{\phi}_1 = [(p_2 - c - t)\phi_2 + 2t]^2/8at\phi_2.$$

Examining the first-order derivatives of these reaction functions, we find the following reactive directions against the competitor's price and advertising changes:

Table 1 Sensitivity of Reaction Functions

Reaction	p_2	ϕ_2
\hat{p}_1	+	–
$\hat{\phi}_1$	+	+ if $3t < p_2 - c$ – if $3t > p_2 - c$

That is, when firm 2 raises price, it's best for firm 1 to also raise its price *and* to increase advertising spending. When firm 2 increases advertising, the best response for firm 1 is to lower its price *and* to decrease advertising if t is small (decrease advertising otherwise). The price reaction is intuitive, but the advertising reaction is a surprise. When the retailers are less differentiated (i.e., smaller t), consumers are more prone to switch between brands at a smaller price advantage. Thus, firm 1 can attract more shoppers by lowering its price at the same time increasing advertising. But when t is large, a lower price would not be sufficient to lure consumers who are shopping around.

Since the retailers are symmetric, we can delete the subscripts and solve the equation system (3) and (4) for p and ϕ . Among three roots, the only positive solution is

$$p^* = c + \sqrt{2at} \quad (5)$$

$$\phi^* = 2/(1 + \sqrt{2a/t}) \quad (6)$$

Because ϕ is a probability that needs to be less than one, (6) requires a parameter condition $a \geq t/2$, which will be used later in the analysis. These are exactly the same solution as in Levy and Gerlowski (1991). The resulting demand and profit at this equilibrium are

$$D^* = 2\sqrt{2at}/(\sqrt{2a} + \sqrt{t})^2 \text{ and } \Pi^* = 2a/(1 + \sqrt{2a/t})^2 \quad (7)$$

Note that the unit cost c does not play a role in the equilibrium except as an additive term in price. Hence in the following section, the cost will be set to zero without loss of generality.

4.2 Advertising Spill-over Effect

Now consider the case in which both branded retailers are located close to each other. When a consumer is exposed to only one retailer's informative advertising, she would decide to visit that store. But when a competing retailer is located closely from the advertised store, the more likely will the consumer shop around. Suppose that among these partially-informed consumers, a fraction of s ends up shopping around. s is inversely related with the

distance between the two retail stores. Then retailer 1's captive consumer segment is reduced by $s(\phi_1 - \phi_1\phi_2)$. Therefore, consumers in this expanded competitive segment have full information either by being exposed to both advertisements or by visiting both stores.

The demand function for retailer 1 can be derived as

$$D_1 = \phi_1(1 - \phi_2)(1 - s) + (\phi_1\phi_2 + \phi_1(1 - \phi_2)s + \phi_2(1 - \phi_1)s)(p_2 - p_1 + t)/2t \quad (8)$$

Retailer 2's demand function is symmetric, and one can easily check that the combined demand stays the same as in the previous case: i.e., $D_1 + D_2 = \phi_1 + \phi_2 - \phi_1\phi_2$.

The symmetric equilibrium solution can be obtained by solving the equation system of the first-order conditions for p and ϕ as in the base model above:

$$p^* = \frac{-4as + st + \sqrt{16a^2s^2 + 8a(4 - 3(2 - s)s)t + s^2t^2}}{4 - 6s + 4s^2}, \quad (9)$$

$$\phi^* = \frac{-4(as + t) + st + \sqrt{16a^2s^2 + 8a(4 - 3(2 - s)s)t + s^2t^2}}{2(a(2 - 4s) - t)} \quad (10)$$

The corresponding symmetric demand and profit at equilibrium have messy expressions so that they will not be presented here. The next section analyzes the solutions to examine key properties of these equilibria.

5. The Findings

5.1 The Free-standing Stores

First, the equilibrium solution for the free-standing retail stores (Equations (5), (6), and (7)) is examined. Note that the unit cost affects price in linear fashion, and it is not a part of the other quantities including the profit. Hence, the cost term is dropped from the subsequent analysis. Table 2 presents comparative statics of the equilibrium solution:

Table 2 Comparative Statics of Equilibrium Solutions: Free-Standing Case

	∂p^*	$\partial \phi^*$	∂D^*	$\partial \Pi^*$
∂a	+	−	−	+
∂t	+	+	+	+

As advertising becomes more expensive (i.e., as a becomes larger), the firms increase price ($\frac{\partial p^*}{\partial a} > 0$) and reduce the advertising level ($\frac{\partial \phi^*}{\partial a} < 0$). However, the total advertising expenditure ($a\phi^2/2$) goes up despite the reduced advertising. Increased price and reduced advertising has negative impacts on the demand ($\frac{\partial D^*}{\partial a} < 0$, since $a > t/2$). Surprisingly, however, the equilibrium profit increases ($\frac{\partial \Pi^*}{\partial a} > 0$) as the advertising becomes more expensive. Here is an explanation: The reduced advertising means a lower probability of exposure ϕ_i , but the area of price competition $\phi_1\phi_2$ is reduced by its square. The reduced competition allows both retailers to raise prices sufficiently high that the increased revenue more than compensates the reduced demand. Furthermore, the increased revenue is sufficient to also offset the increased total advertising expenditure.

As the retailers are more differentiated (i.e., larger t), the equilibrium price increases ($\frac{\partial p^*}{\partial t} > 0$). That is, as the retailers are more differentiated, price competition becomes less intensive, resulting in a higher equilibrium price. At the same time, the retailers will spend more on advertising as they are more differentiated ($\frac{\partial \phi^*}{\partial t} > 0$). This latter result seems puzzling initially, but it can be explained by the reduced price competition. More horizontal

differentiation means that the retailers will face less price competition because those consumers who were exposed to both advertisements ($\phi_1\phi_2$) are less sensitive to price difference. Thus, firms can afford to spend more on advertising with less negative impact of the increased intersection area. Optimal advertising is determined by a balance between marginal revenue and marginal cost. When the price increases, the contribution margin also increases; hence, which results in a higher advertising spending. With a higher price and increased advertising, the end result of more horizontal differentiation is an increased demand ($\frac{\partial D^*}{\partial t} = \frac{\sqrt{2a}(\sqrt{2a}-\sqrt{t})}{(\sqrt{2a}+\sqrt{t})^3\sqrt{t}} \geq 0$). Increased price and demand naturally result in a higher profit ($\frac{\partial \Pi^*}{\partial t} = \frac{2t^{\frac{3}{2}}}{(\sqrt{2a}+\sqrt{t})^2} > 0$).

Proposition 1: Suppose the two retail stores are located sufficiently far from each other so that there is no spill-over effect of advertising. As advertising becomes more expensive, equilibrium price increases, advertising expenditure decreases, and demand decreases, but profit increases.

Proposition 2: Suppose the two retail stores are located sufficiently far from each other so that there is no spill-over effect of advertising. As the retailers are more differentiated in horizontal dimension (i.e., a larger t), equilibrium price increases, advertising increases, demand increases, and profit increases.

5.2 The General Model with Advertising Spill-over

We are now interested in examining whether the equilibrium properties derived above still hold in the more general values of $0 \leq s \leq 1$. Recall that s represents the fraction of partially-informed consumers who engage in opportunistic comparison shopping. Also recall that s is inversely related with the proximity between the two retail stores. The following table summarizes comparative statics of the equilibrium solution in the mall-location case:

Table 3 Comparative Statics of Equilibrium Solutions: Free-Standing Case

	∂p^*	$\partial \phi^*$	∂D^*	$\partial \Pi^*$
∂a	+	–	–	+ when s is small –when s is large
∂t	+	+	+	+
∂s	Indeterminate	–	–	Indeterminate

Setting t at an arbitrary value ($t = 1$), we graphically examine the equilibrium price at several middle values of s in Figure 3. The graph concurs with the finding from the free-standing case: when advertising becomes more expensive, the equilibrium price increases.

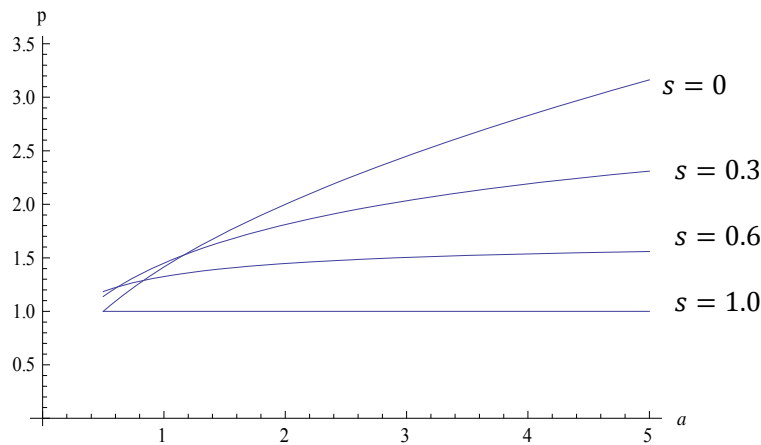


Figure 3 Equilibrium Price in Advertising Cost ($t = 1$)

As the advertising cost increases, the retailer will spend less on advertising ($\frac{\partial \phi^*}{\partial a} \leq 0$), but the total advertising cost will be higher. Although the expression of the first order derivative of demand with respect to advertising cost is analytically messy, it is graphically consistent with the free-standing case ($\frac{\partial D^*}{\partial a} \leq 0$) as shown in Figure 4.

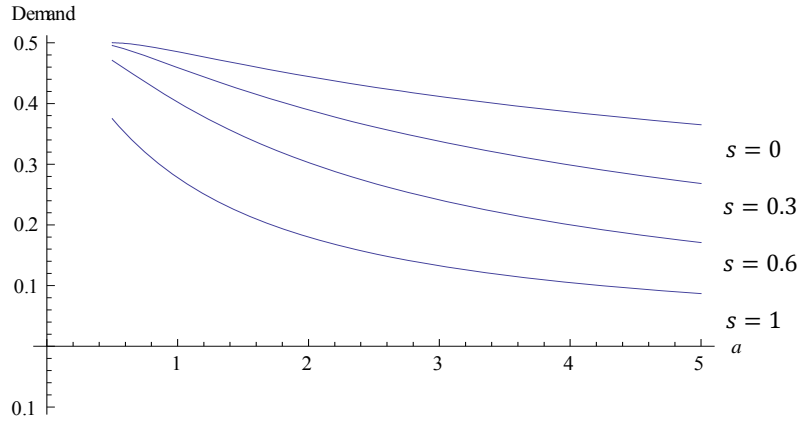


Figure 4 Equilibrium Demand in Advertising Cost ($t = 1$)

Similar to the free-standing case, increased advertising cost will raise price, decrease advertising level but at a higher advertising expenditure, and consequently suppress the demand.

The effect of advertising cost on profit is more complex. When there is no advertising spill over (i.e., $s = 0$), the equilibrium profit increases as advertising becomes more expensive ($\frac{\partial \Pi^*}{\partial a} \geq 0$). On the other hand, as more consumers shop around (i.e., a larger s), the profit decreases as advertising becomes more expensive particularly when a is already high (see Figure 5). When mutual spill-over of informative advertisement becomes extensive in the shopping mall location, the increased price becomes insufficient to compensate the decreased demand. However, we show below that when the advertising cost is relatively low, it can be more profitable to let some portion of consumers shop around.

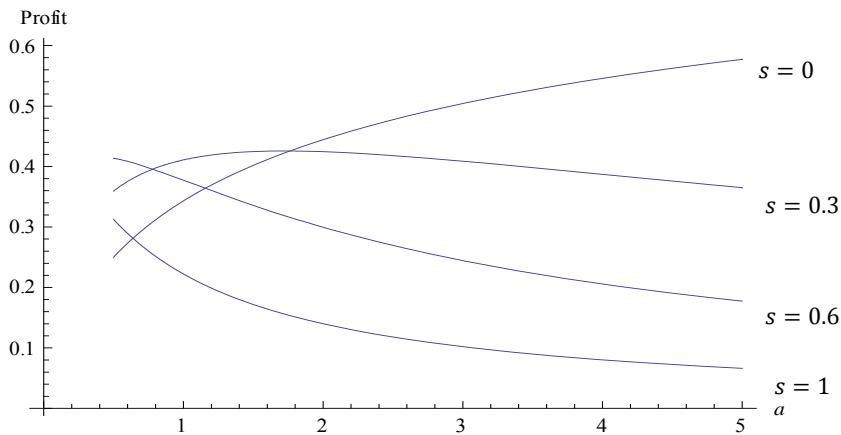


Figure 5 Equilibrium Profit in Advertising Cost ($t = 1$)

Proposition 3: Suppose the two retail stores are geographically concentrated. As advertising becomes more expensive, equilibrium price increases, advertising decreases but its expenditure increases, demand decreases. The equilibrium profit increases when the probability of shop-around is low but decreases when the probability is high.

Proposition 4: Suppose the two retail stores are geographically concentrated. As retailers are more horizontally differentiated, equilibrium price increases, advertising increases, demand increases, and profit increases.

Comparative statics with respect to s are very messy, so we again resort to graphical analysis. Figure 6 presents the effect of the shop-around probability (s) on equilibrium price. Although the effects are mixed, we found that at some combinations of the two parameters, the equilibrium price is the highest at an internal value of s . This is related with the behavior of profit level to be discussed below.

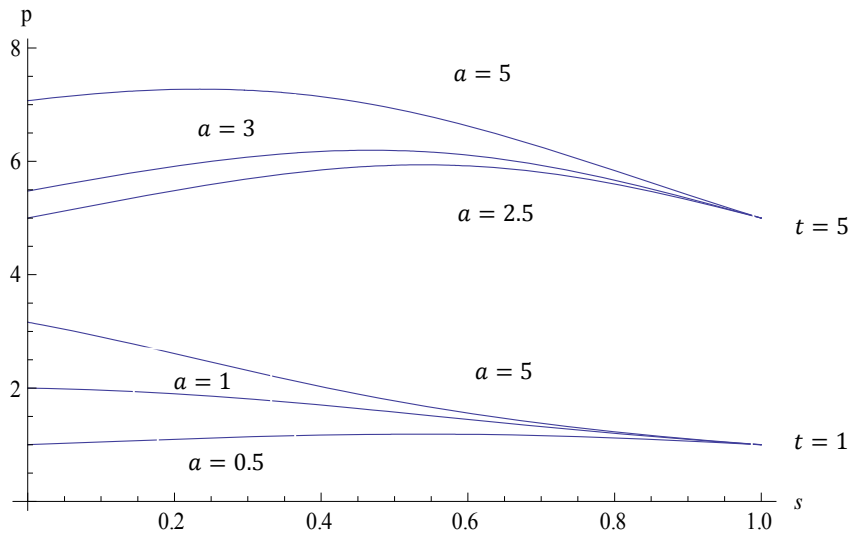


Figure 6 Equilibrium Price in the Shop-Around Probability

The effects of s on advertising and demand are negative as can be seen in Figures 7 and 8. That is, as more partially-informed consumers discover the other store and decide to shop around, the retailers have less incentive to advertise, and the equilibrium demand decreases.

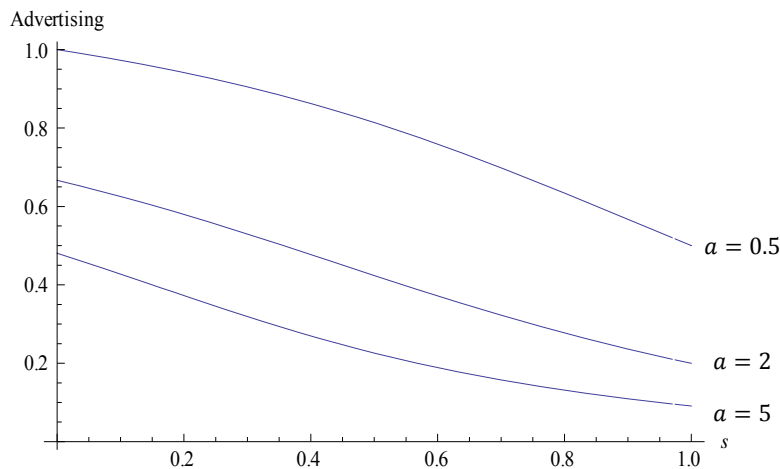


Figure 7 Equilibrium Advertising in the Shop-Around Probability ($t = 1$)

The effect of the shop-around probability on profit is more complex. When $s = 0$, which is the same as the free-standing model, the equilibrium profit is higher as advertising cost is higher. But that changes radically as s increases. When the advertising cost a is high, the equilibrium profit decreases in s ; when a is low, however, the

profit increases initially with s and then decreases (see Figure 9). That is, when advertising cost is low, there is an “optimal distance” between the retail stores that maximizes equilibrium profit. Since we know that the demand decreases in s , positive profit effects are mainly due to a higher price. As the retailer differentiation is greater (i.e., a larger t), these effects are amplified at a higher profit level because the price competition becomes less intense. That is, when advertising is cheap, branded retailer profits can be increased by locating their stores close to each other and letting a portion of consumers shop around; and that is more pronounced as the retailers are more differentiated.

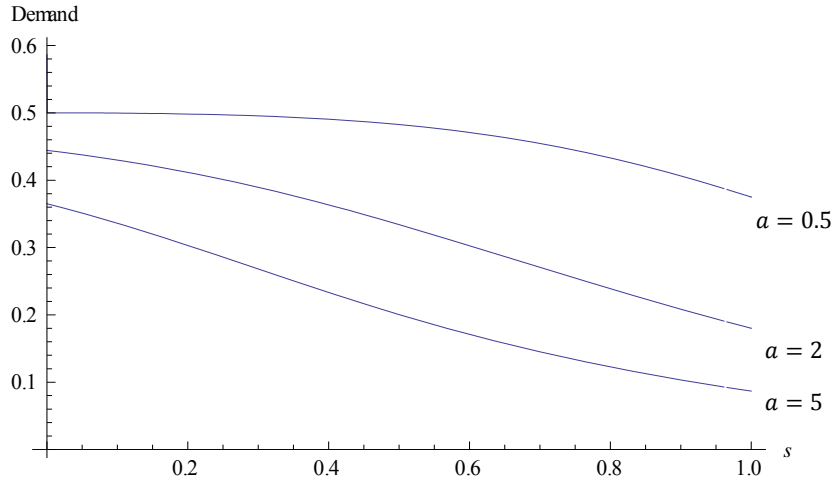


Figure 8 Equilibrium Demand in the Shop-Around Probability ($t = 1$)

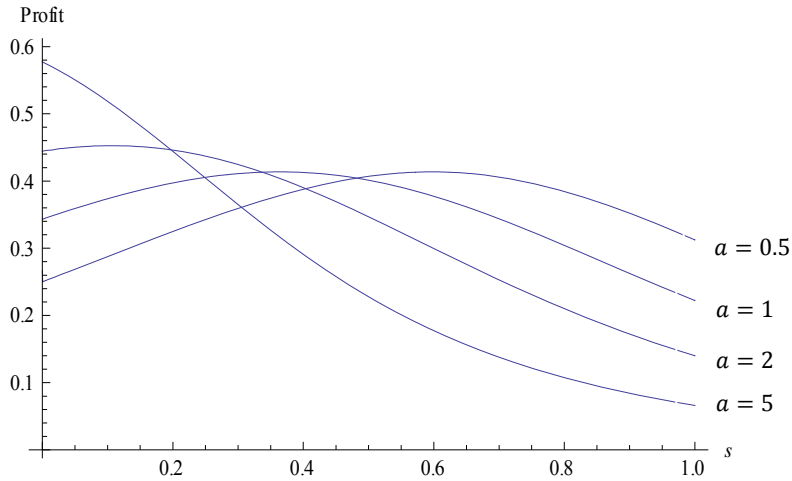


Figure 9 Equilibrium Profit in the Shop-Around Probability ($t = 1$)

Proposition 5: As the probability of shop-around increases,

(1) The equilibrium advertising and demand decrease.

(2) The changes in the equilibrium price and profit depend on the levels of advertising cost a and store differentiation t . For a given t , when advertising is expensive, the retailers are better off by discouraging shop-around behavior. When advertising is cheap, retailer profit is the highest at an interior solution of the shop-around probability.

Figure 10 presents the “optimal” levels of shop-around probability at various values of advertising cost and

retailer differentiation. As discussed above, the probability of opportunistic shop-around behavior is inversely related with the distance between the two stores. This implies that, depending on the levels of advertising cost and brand differentiation, there is an optimal distance between the two stores. The lower the advertising cost is, the retail stores are better off to be located close to each other and let partially informed consumers engage in comparative shopping. This effect becomes more pronounced as the retailers are more differentiated.

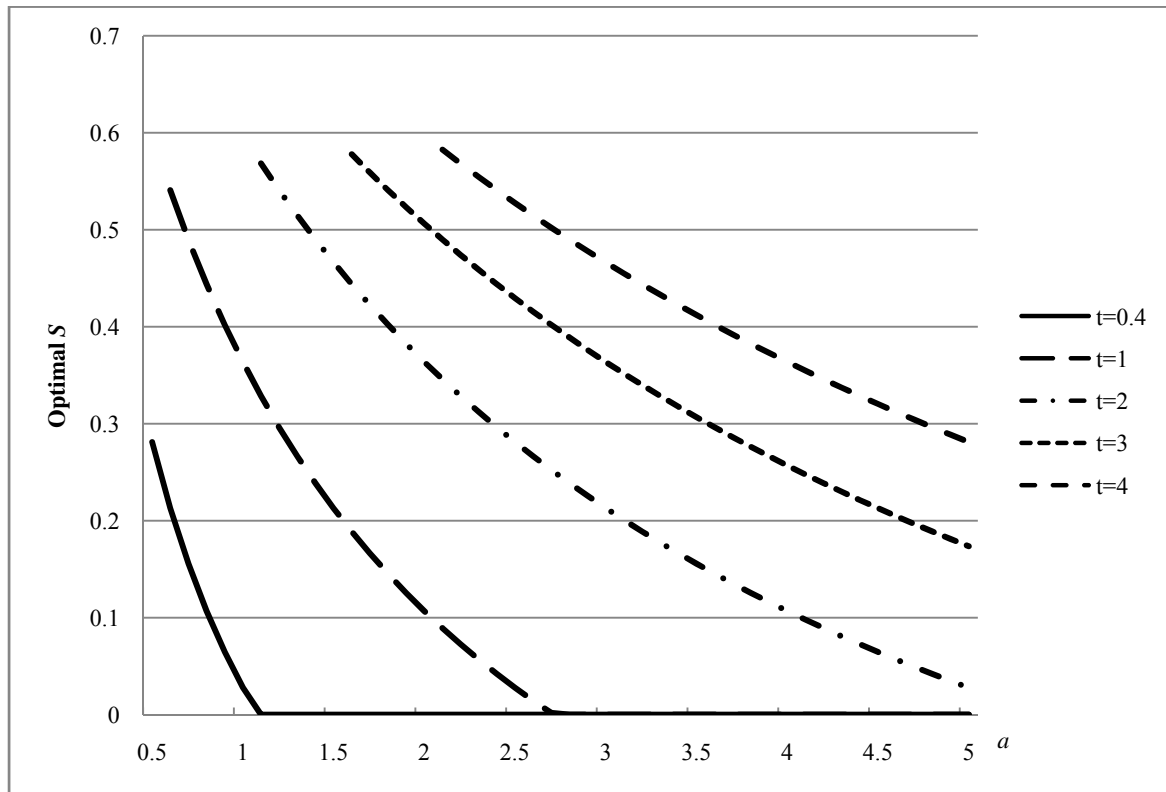


Figure 10 Optimal Probability of Shop-around Behavior

6. Conclusion

The problem of retail store location has been a subject of numerous studies in the past. An important parameter for the location decision is competition from other retailers, which is a function of the degree of retailer differentiation and the proximity among them. There are conflicting views on the effects of retail store proximity in the existing literature: while a larger gravitational consumer attraction favors concentrated retailer locations, the resulting intense price competition tends favor stand-alone retailer locations. Even using the same Hotelling model, one can derive opposite implications (i.e., minimum or maximum differentiation) depending on assumptions on choice and cost parameters. Thus, an actual location decision will have to consider all relevant factors. This paper adds one more reason to favor concentrated locations, especially when advertising cost is low and stores are differentiated.

Our model assumes that advertising is mostly informative, which is the case in most advertisements by local branded retailers. By advertising, each retailer attempts to remind consumers of its store and to inform about its promotions. For fully-informed consumers, who were exposed to both advertisements, their store choice is not much affected by the relative location of the stores. However, for partially-informed consumers, who were

exposed to only one store's advertisement, their final purchase decision is affected by the proximity between the stores. If the stores are located close to each other, it permits opportunistic comparison shopping behavior. In other words, the informative advertisement has a spill-over effect among the partially-informed consumers. This effect causes the retailers to reduce spending on advertising. But equilibrium price and profit levels may be positively or negatively affected by the advertising spill-over, depending on the cost of advertising and the degree of retailer differentiation.

Interestingly, there is an "optimal" level of opportunistic shop-around behavior for each pair of advertising cost and retailer differentiation parameters. Since the probability of the opportunistic shop-around behavior is inversely related with the distance between the two retail stores, it follows that there is an optimal distance between the retailers, which is a function of the two parameters. As advertising is cheaper and products are more differentiated, the optimal distance becomes shorter: i.e., it is more profitable for the retailers to locate closer to each other, and let the partially-informed consumers shop-around.

These results are subject to several limitations, which can also become future research opportunities. First, we have assumed symmetric branded retailers that are horizontally differentiated. However, we observe many asymmetric stores in terms of quality differentiation and their sizes. Extending our model to accommodate asymmetric competition would be a very challenging but a fruitful study. Second, our model assumes that the market is not covered: i.e., those who were not exposed to either advertisement are not captured in our demand. In some product categories where consumers actively engage in search behavior, market would be fully covered. Or the gravity pull of a large shopping mall may attract uninformed consumers, too. A further study is under way to extend the current model to these covered-market cases. Third, the retailers are assumed to have no knowledge on consumer types. However, a savvy retailer should be able to identify partially-informed consumers from fully-informed consumers and employ discriminatory pricing (such as coupons). Finally, we observe that most product advertising is sponsored by the manufacturers, but retail pricing decisions are made by retailers. Applying the current research framework to analyzing different roles of channel members in a distribution system would be an important direction for future studies.

References:

- Brown Stephen (1989). "Retail location theory: The legacy of Harold Hotelling", *Journal of Retailing*, Vol. 65, No. 4, pp. 450-460.
- Craig C. Samuel, Avijit Ghosh and Sara McLafferty (1984). "Models of the retail location process: A review", *Journal of Retailing*, Vol. 60, No. 1, pp. 5-38.
- Drezner Tammy (1994). "Optimal continuous location of a retail facility, facility attractiveness, and market share: An interactive model", *Journal of Retailing*, Vol. 70, No. 1, pp. 49-64.
- Durvasula Srinivas, Subhash Sharma and J. Craig Andrews (1992). "STORELOC: A retail store location model based on managerial judgments", *Journal of Retailing*, Vol. 68, No. 4, pp. 420-444.
- Ghosh Avijit and Sara McLafferty (1987). *Location Strategies for Retail and Service Firms*, Lexington, MA, Lexington Books.
- Ghosh Avijit and C. Samuel Craig (1986). "An approach to determining optimal locations for new services", *Journal of Marketing Research*, Vol. 23, No. 4, pp. 354-362.
- Grossman Gene M. and Carl Shapiro (1984). "Informative advertising with differentiated products", *Review of Economic Studies*, Vol. 51, No. 164, pp. 63-81.
- Ingene Charles and R Lusch (1981). "Market selection decision for department stores", in: J Sheth (Ed.), *Research in Marketing*, Greenwich, CT, JAI Press, p. 5.
- Leszczyc Peter T., L. Popkowski, Ashishi Sinha and Anna Sahgal (2004). "The effect of multi-purpose shopping on pricing and location strategy for grocery stores", *Journal of Retailing*, Vol. 80, No. 2, pp. 85-99.
- Levy David T. and Daniel A. Gerlowski (1991). "Competition, advertising and meeting competitive clauses", *Economics Letters*, Vol.

37, pp. 217-221.

MacKay David B. (1972). "A microanalytic approach to store location analysis", *Journal of Marketing Research*, Vol. IX, May, pp. 134-140.

Nelson Richard L. (1966). *The Selection of Retail Locations*, New York, McGraw-Hill.

Tirole Jean (1989). *The Theory of Industrial Organization*, Cambridge, MA, The MIT Press.

Accounting Monologue: Management Accounting Use in Micro and Small Companies According to Bakhtin's Communicational Process

Patricia Villa Costa Vaz¹, Marcia Maria dos Santos Bortolocci Espejo¹, Silvia Pereira de Castro Casa Nova²,
Simone Bernardes Voese¹

(1. Federal University of Parana, Brazil; 2. University of Sao Paulo, Brazil)

Abstract: Management accounting long influence the decision making process, providing necessary information and showing the reality of companies. However, more than just inform, it is essential to consider the relationship between information and its user, namely who he is, what he needs to know and what he already knows. Thus, we noticed some barrier between the user of accounting information and the information itself. In this sense, we question: from the communicational relationship entrepreneur-accountant, under the theoretical perspective of Bakhtin, which behavioral aspects influence the understanding and use of management accounting in the decision making process of micro and small enterprises? This work constitutes a development of two case studies, each one consisting in interviews with one accounting firm, five of its customers and data triangulation with documental research. Results indicated that the behavioral aspects influencing the understanding and use of management accounting in decision making of these enterprises are: availability of the accountant in settling questions with entrepreneurs; clear and simple language; reducing the use of technical terms; accounting closer to the administrative daily activities; accounting valuation by accountants and also by micro enterprises managers, to realize their potential information, decoupling the image of accounting for tax purposes only.

Key words: Bakhtin; communicational process; decision-making; management accounting; small and micro enterprises

JEL code: M400

1. Introduction

In a society where information changes constantly, managers need help to get the data they searches for, since their diversity and quantity hinder the separation of what is useful and what is superfluous to the goal they wants to achieve.

This information overload can be seen in almost all sectors of society. In this context, micro and small

Patricia Villa Costa Vaz, Ph.D. Student, Federal University of Parana; research areas/interests: management accounting. E-mail: patricia.villa@ufpr.br.

Marcia Maria dos Santos Bortolocci Espejo, Dr., Professor, Federal University of Parana; research areas/interests: management accounting. E-mail: marciabortolocci@ufpr.br.

Silvia Pereira de Castro Casa Nova, Dr., Professor, University of Sao Paulo; research areas/interests: management accounting. E-mail: silvianova@usp.br.

Simone Bernardes Voese, Dr., Professor, Federal University of Parana; research areas/interests: management accounting. E-mail: simone.voese@gmail.com.

enterprises often lack the necessary support to use the data supplied by Accounting for effective decision making. One of the major difficulties faced by entrepreneurs refers to the understanding of financial and accounting aspects of the business (Casa Nova, 1997).

When starting a business, entrepreneurs need to have a proper business planning (Mehralizadeh, Sajady, 2006). However, the following items should help improve the chances of success: constant development and evaluation of the business plan; recognition of market opportunities; accurate and timely financial information; better understanding of target customers, finding information about available resources and research funding opportunities (Mehralizadeh, Sajady, 2006).

A report by the Brazilian Service of Support for Micro and Small Enterprises — Sebrae (2011a) found that mortality rates for these Brazilian companies with up to two years old and established in 2006, was 26.9%. Considering only the companies from the State of Parana, this ratio rises to 30%. Among the success factors mentioned by entrepreneurs interviewed in another study by Sebrae (2004), the skills are among the most relevant ones, and among them a good knowledge of the market where they operate. The mortality of these companies impacts on the economy, changing levels of income and employment.

In this study, we consider that Accounting is a language, and as such, has all the characteristics inherent in the communicational processes. The disclosure of financial statements, the figure of the issuer (who is preparing the report), the receiver (the user of this report), and the message (the report itself) are examples of this characteristics. Other figures that are part of this process involves the specific language used in accounting (its terms and concepts) and potential noises of the message, such as the receiver not understanding what is being said. However, studies adopting the theoretical basis of communication in Accounting are still recent in Brazil.

In this sense, we question: from the communicational relationship between entrepreneur and accountant, under the theoretical perspective of Bakhtin, which behavioral aspects influence the understanding and use of Management Accounting in the decision making process of micro and small enterprises? This question refers to the information managers need and what information is provided by Accounting, considering the behavioral aspects of those involved in this process.

The overall objective of this study is to analyze the behavioral aspects that influence the understanding and use of Management Accounting in decision making of micro and small enterprises, under the communicational relationship between entrepreneur and accountant, considering Bakhtin's theory.

This study is justified by the importance of micro and small enterprises for the Brazilian economy, as they currently represent 6.1 million of establishments in operation, generating 14.7 million formal jobs (Sebrae, 2011b). Furthermore, it is stated that this is a good time to include a discussion on the importance of Management Accounting in micro and small enterprises. Moment in which the Brazilian government and the Federal Accounting Council, along with Regional Councils, are seeking to apply the International Financial Reporting Standards — IFRS for small and micro enterprises. This interest in including these enterprises in public policies highlights the relevance of companies of this size to the society.

This paper is structured as follows: the theoretical framework brings the communication theory of Bakhtin, including his concepts in Management Accounting context. After, we present the methodology and results of the research, concluding with the Final Remarks.

2. Theoretical Framework

To understand the link between the accountant and the manager of micro and small enterprises, we sought initially to characterize Bakhtin's theory about the communication process, to then verify its applicability in Management Accounting.

The previous language to Bakhtin (1997), notably expounded by Saussure, mentioned only the speaker and the listener, in a process in which only the speaker maintains an active process in speech, while the listener only understand it passively. Saussure defines language as social in nature and independent of the individual (Vicenzi, 2009). It is not an individual phenomenon, it is not complete in any speaker; no individual carries the entire universe of language. Moreover, it is recorded passively and not conscious, since the individual is not aware of how language acquires nor how it is structured, it just serves it up. Thus, Bakhtin notes that there is some "science fiction" (Bakhtin, 1997) when linguists seek to represent all real communication in mere unilateral and passive processes of speech and reception.

Thus, there is a wrong estimate of the communicative functions of language, because the speaker is not alone, much less the party recipient liability is limited to understand the announcer. According to Bakhtin, every speech generates an "active responsive attitude" (Bakhtin, 1997, p. 290), in which the listener becomes the speaker.

This process is effective when the announcer speaks. To speak (or write), the speaker expects a response (agreement, objection, compliance). The desire to make intelligible speech is only one element of intent. To Bakhtin (1997), the responsive understanding may have a delayed effect. This occurs when sooner or later what is heard and understood in an active way will find an echo in the subsequent speech or behavior of the listener. This communication is an interaction cycle, since the speaker is also a respondent. The statements are the links of this complex chain of communication.

To Bakhtin (1997), in preparing the statement, the issuer seeks to determine the response of the receiver, anticipating possible reactions, considering the "apperceptive background" (Bakhtin, 1997) in which the message is received, i.e., "the degree of information that he has the situation, their specialized knowledge in certain cultural communication, their opinions and their beliefs, their prejudices (...)" (Bakhtin, 1997, p. 321).

Another Bakhtin's contributions for the Communication Theory was to reveal that meanings are not stable, i.e., they always change (Mraovic, 2008). Under this idea, we can analyze that each speech has a characteristic and a meaning, assigned according to the context. For this reason, socio-cultural phenomena are created within the dialogical relationship between individuals, including languages, drawings and symbols. For Management Accounting, this concept applies in analyzing the informational needs of users, producing specific decision making reports.

By changing the initial proposition of Saussure, that meaning is a closed and standardized form, Bakhtin includes the active responsive attitude of the receiver as part of the speech, allowing greater interaction between individuals in communication. Including the reader as active in the formation of meaning, Bakhtin's theory can bring a new concept to Management Accounting, because the user of the accounting information is now seen as a participant and is invited to read and understand the information in the accounting reports. In this process, there is a natural need to consider the receiver and how he reinterprets and thus changes the accounting message. The user of accounting ceases to be a mere receiver of the message and becomes an essential part in the communicational process.

As reflections of contextualized signals, accounting reports are included in power relationships, since technical terms are considered as supreme power to those who have the knowledge (Mraovic, 2008). However, the signals are built on mutual relationships between individuals within a community. For this reason, it is understood that despite the language itself, Accounting — with its users — builds signals that facilitate its comprehension. The receiver (user of accounting information) must go through accounting framework to use information provided in the best way possible. On the other hand, Management Accounting should also seek to go through the user context, analyzing their needs and their prior knowledge of the subject, considering this context in the decision model.

As stated, the intentionality of the user rationally organizes the speech (Abraham, 1987). The output of the system is then shared by those that have the same collectivity, i.e., are close to the intention. Therefore, language is a social system; its purpose is to limit the arbitrariness because the issuer cannot always control the meaning that words has for receivers, but can anticipate and provide tips of the meaning he is using. The role of the speech is to explain (Bebbington, Gray, 2000); language does not reflect a pre-existing social reality, but rather frames this reality. Accounting, as a language, should limit the arbitrariness of reports interpretation, providing approximations of the meanings that are being used.

Therefore, communication not only conveys information, but simultaneously imposes a behavior (Watzlawick, Helmick, Jackson, 2002). A report intends to transmit data, different from an order that says how communication should be understood; there is an impossibility of not communicating, since human relationships are symmetrical, reflecting behaviors, and are complementary to each other.

Considering all these factors, Figure 1 shows a communication model that can be applied to Management Accounting, targeting features of Bakhtin's receiver.

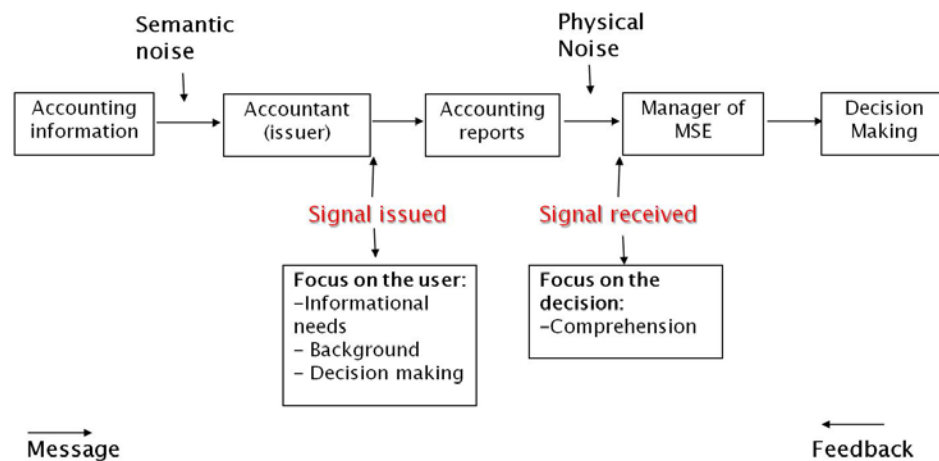


Figure 1 Communicational Process in Management Accounting (From Espejo & Villa, 2012)

As shown in Figure 1, the communication process starts with the receipt of the accounting information and its subsequent transmission by the issuer — the accountant. The message is composed by accounting reports, arriving to the receiver — manager of the company — so they can be interpreted and used in decision making. However, there are noises inherent to the process, guiding the possible reasons for little use of Management Accounting by micro and small enterprises, making the communication ineffective. Semantic noises, which involves the preparation of reports by the accountant, refers to questions about the difficulty of approaching management concepts and their use in practice, even in large companies (Souza, Lisboa, Rocha, 2003).

Also inherent in this process is the feedback. This element of communication includes the stereotype that the accountant has, i.e., the view that the user of the information has of the issuer. The public perception of accounting is concerning, as it is considered wrong and negatively stereotyped in most cases (Azevedo, 2010). Thus, the vision of the issuer in Accounting — and the figure of the accountant — is relevant in the communicational process as it will shape the possibility of returning the message to the issuer, seeking better ways of understanding. If the receiver does not realize accounting as an area that offers challenges for the development of skills and learning, they will probably avoid getting this type of information (Azevedo, 2010).

Furthermore, Davison (2011) noted the existence of a lack of communication skills to those who follow the accounting career, hindering this process. By observing that people seek information relevant to their goals or future actions, Festinger (1975) correlated that the degree of motivation of this search is inverse to dissonance, i.e., non-understanding. The ideal situation would be elaborating reports with focus in the user of the information, combining ease of reading (avoiding ambiguity) and ease of writing, enabling the active participation of the reader.

3. Methodology

The basic theory of this study encompasses the communication patterns of Bakhtin. This choice is due to the fact that this author presents a communicational model that seeks to analyze the relationship between issuer and receiver, not only describing the process, but indicating possible noises and reasons.

The research assumes that the manager—owner of micro and small enterprises have difficulty in understanding the accounting data. Another point of consideration is that the accountant does not provide the data that the manager needs to evaluate and use in decision making, either by not facilitating the provision of data, with confusing information and technical language (referring to the question: “what is transmitted?”), or by the accountants profile and skills, who fail to convey information in a clear and useful way (referring to the question: “how it is transmitted?”).

The methodological approach of this study is interpretive and the research strategy adopted is the case study, with two elements of analysis. Data collected in semi-structured interviews were investigated through discourse analysis and triangulation by documentary research. As the problem approach, this study is qualitative (Raupp, Beuren, 2003) and as the objective of the study, we sought a descriptive study, with explanatory nuances.

After the methodological definition, we attempted to structure the two case studies as follows: case study #1, composed by interviews with the accountant responsible for the accounting office #1, five of his clients (A, B, C, D and E) and triangulation of data with documentary research; case study #2, consisting in interviews with the accountant responsible for the accounting office #2, five of his clients (F, G, H, I and J) and triangulation of data with documentary research. Regarding the triangulation of data by the researcher, we asked the accountant and its clients, to show the accounting and management reports mentioned in the interviews. We sought to confirm the data exposed in interviews, providing objectivity to the study. Soon after the realization and transcription of the interviews, the researcher returned to the accountant and managers in order to ascertain whether someone would like to add or change any information.

These companies were selected by the criteria of access and convenience (Cooper, Schindler, 2003). It was believed that such proximity would help in achieving the objectives of the research, as respondents would have a possible opening to inform the veracity of the facts, and would not be afraid of theirs answers. The accounting

offices and the enterprises are located in the city of Curitiba/PR. The interviews were scheduled according to the availability of respondents. This personal application of the interviews corroborates with the interpretive nature of the study, allowing the discourse analysis of the statements.

4. Data Analysis and Discussion

4.1 Communicational Process Observed between Accountant and Entrepreneur

Initially, was noticed in the statement of Company F, the institutionalization of rules and routines. The manager claims that he did not need courses for managing his business, because he acquired knowledge working during 10 years as an employee in the same area. All of his knowledge comes from practice. Thus, in the view of this respondent, accounting reports would serve only to larger companies, since he knows his business very well. This fact is also observed in the report of company J, which states that accounting does not help to control costs.

Another highlight is that accounting reports sent to managers of micro and small enterprises do not consider the background mentioned by Bakhtin (1997), turning the messages empty of meaning for the receiver. This corroborates the fact that accounting information is often seen as incorrect, as indicated by company G, or unnecessary as reported by company F.

According to accountant 01, the difficulty in understanding accounting information refers to a lack of knowledge, or even instruction, by entrepreneurs, who are not interested in seeking information and improve the management of their companies. Accountant 02 also believes in the need for manager's development, through courses, showing interest in obtaining better information.

On the other hand, according to company C entrepreneurs claim that accountants does not strive to provide clear information, and according to company J sends only the minimum required by the law and therefore do not provide guidance to their customers.

Another concept of Bakhtin (1997) in the interviews was the desire for active responsive understanding. Accountant 01 believes that internal controls would be more valid than accounting itself, as the information transmitted by micro and small entrepreneurs to accounting many times does not match with reality, causing data to be unrealistic and unable to be used in decision making. Accountant 01 also states that he does not have the time or structure to focus on the understanding of reports by managers.

However, as reported by company D, the organization of accounting firms is poor, they do not seek this active responsive understanding, since the accounting world is different from the administrative and the use of specific terminology of accounting for micro and small enterprises hampers the comprehension of reports. It is noteworthy, therefore, the application of the concepts of Festinger (1975) in the reports of the companies, since managers seek information relevant to their goals or future actions. It is emphasized that the ideal situation would be elaborating reports with focus in the user of information, combining ease of reading (avoiding ambiguities) and the ease of writing, enabling the active participation of the reader.

According to Bakhtin (1997), we emphasize that this one-sided communication model does not agree with the actual communicative functions of language, because the accountant is not alone, much less is the entrepreneur limited to understand the speaker. One should initially seek a standard concept of the entrepreneur (who he is and what is his influence in the formation of speech), thus determining the discourse genre (reports), selecting words and their meanings. The next step would be include the receiver as active in the formation of this meaning; understand the user of accounting information as a participant and inviting them to interpret the

information contained in the reports. As emphasized by company D, the use of technical terms should also be rethought, regarded by the respondent as a barrier to understanding.

4.2 Possible Noises in the Communicational Process and Suggestions

We also sought that the respondents provide their ideas of the best possible arrangement of accounting data. To company C, the availability of the accountant in resolving questions would already be a great help in interpreting these data; as well reported by company B, when states that it would require a greater availability of offices to send information by email or phone. To company D, the suggestion would be a meeting during the receipt of reports, to solve possible doubts.

However, company E believes that the language used in reports is a barrier, and that a simpler language would help the understanding. To company G, the only thing missing would be themselves sending the complete accounting information, making data true and usable for decision. To Company H, the accountant needs to share what he knows about finance and management.

Considering this, Figure 2 shows the analysis of the communicational process observed in the two case studies.

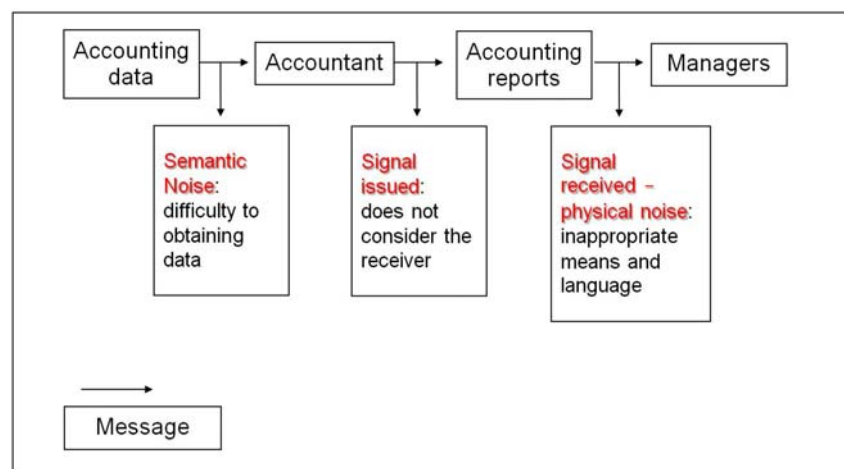


Figure 2 Communicational Process Observed in the Case Studies

As Figure 2 shows, the communicational process observed in the two case studies begins with the collection of accounting data by the accounting professional. In this first stage, there is a possible semantic noise, indicated by accountant 01 and company G, namely that accounting does not have all of the data related to companies, for example, information on the amount of stock. Then, in some cases, the accountant sends to companies reports such as the Balance Sheet and payroll. At this time of issuing the signal, it was noticed that the background of the reader is not considered, i.e., who the manager is, what he knows and what he needs to know is ignored; being limited to the mandatory information. Resumed here, are the assumptions of the study, indicating that the accountant does not inform what the manager needs to know or in a way that the manager understands.

During the moment the signal is received, it was noticed in both case studies that the means is not always appropriate, i.e., messages are unclear and the language difficult to understand, as indicated by companies B and D. Thus, the communicational process ends, most often, with the receipt of the reports by managers, that do not use the information for decision making. It is also noteworthy, that the feedback, i.e. the return of message to the accountant, does not occur. Only a few managers try to solve questions with their accountant, for example company C.

Thus, one of the elements that do not allow the feedback is the stereotype of the accountant, or the view that the manager has of the accounting professional. In this study, we found that respondents see the accountant as a government agent, whose work refers only to tax assessment. In the interview of company H it was possible to find another view of the accountant, as someone to solve doubts. But company C believes that the accountant is a kind of small enterprises' lawyer. It is noted, however, that the vision about the accountant is part of the entrepreneur-manager communicational process because it defines how the manager will approach the professional, providing importance to accounting data.

From these data, in Table 1 we relate the aspects indicated by accountants and managers of micro and small enterprises regarding the possible non-use of Management Accounting for decision making.

Table 1 Comparison between Interviews of Accountants and Managers

Possible behavioral aspects involved in non-utilization of Management Accounting by micro enterprises	Accountants Arguments	Microenterprises Arguments
	Manager's Lack of knowledge (accountant 01)	Administrative world is different from the Accounting (company D)
	Internal control is more effective (accountant 01)	Accountant does not help beyond tax liability (company C)
	Lack of structure in the Accounting Office (accountant 01)	Did not know the accountant could help in other areas (companies D and J)
	Depends on the accountant in wishing to help (accountant 02)	Accountants' lack of interest in helping (companies C and I)
	Manager must show interest (accountant 02)	Lack of clear information (company B)
	Accountant must be updated (accountant 02)	Do not need help – knowledge from professional practice (company F)

One of the behavioral aspects of non-use of Management Accounting for decision making indicated by the companies and shown in Table 1, is that managers believe that Accounting has justification for use only by the tax issues. Leading the use of accounting communications solely for tax purposes, the receiver (manager) can bind a negative image for Accounting, merely as such tax liability.

It is understood, therefore, that if the aims of such communication were the transmission of information to improve the decision making process, the communicational process would be more efficient, in the sense that the manager would use accounting information to make decisions. Possibly, this process could be effective in the case that the decision generated using such information would provide positive results to organizations.

From the results of this research, it is possible to corroborate the exposed by Azevedo (2010) when he argues that Accounting will be shunned by society until it is assigned a character of challenge for skills development and learning. Thus, with this study, it is possible to provide a basis for rethinking current ways of Accounting Science and question whether a greater proximity to the user is possible, seeking reports more related to the administrative reality.

5. Final Remarks

This research assumed that the manager-owner of micro and small enterprises has difficulties in understanding accounting data. It is also considered that the accountant does not provide data that managers need for the evaluation and decision making, either by not facilitating the provision of data (confusing information, highly technical language) or by the profile and skills of accountants who fail to convey the information in a clear and useful way.

Such aspects that influence the understanding and use of management accounting in the decision making of the micro and small enterprise includes the availability of the accountant in resolving questions of entrepreneurs using clear and simple language; reducing the use of technical jargons; managers improvement with courses on management; accounting closest to the administrative reality; valorization of accounting by accountants themselves, by informing their customers about the importance of having relevant and accurate data for decision making; and also the valorization of accounting by managers of small enterprises, by realizing its informative potential, dissociating the image that accounting is for tax purposes only.

From this, we highlight that Management Accounting needs to be able to help the internal user, demonstrating relevant and timely information about the environment of the company (Beuren, Erfurth, 2010). When elaborating reports, the accountant needs to find the information effects to the users; what meanings the words and signals chosen will reach and if such signal makes any logical sense to the reader. Thus, as supported by Macintosh and Baker (2002), the solution would be to create reports with relevant information for readers, for example, different ways of calculating profit, according to informational needs; combining ease of reading (avoiding ambiguity) and the ease of writing, enabling the active participation of the reader.

Thus, and according to Jiambalvo (2002), the goal of Management Accounting should be to provide the information that managers need for planning, control and decision making. Besides the enhancement of Accounting by managers, this Science must be valorized by accountants themselves, which are the spokesman of accounting concepts and terminologies, essential for decision making in enterprises, but still left out in favor of legal obligations.

It is noteworthy, therefore, that the aim of the present study was not to exhaust the universe of micro and small enterprises or accounting offices, but rather to show a possible approach and discussion on the use of Management Accounting in such organizations, under Bakhtin's (1997) concepts of communication. Therefore, we indicate the limitations of this study that, by referring to a reduced sample does not have as an objective the generalization, but an in-depth study supported on the approach of Management Accounting in the communication theme. Also, it emphasizes the choice of a specific author in the communication area; so we did not seek to cover the whole of the communication theory, but rather include the concepts of a particular author in another area of knowledge. The choice for the author is justified by the role he assigns to the receiver, who would not have a passive attitude.

As suggestions for future research, it is recommended to compare the present study with its application in other samples of companies. Also, it is suggested the selection of other theorists of communication in order to enrich the debate. Another practical suggestion would be the concentration of accounting efforts on bringing Accounting Science closest to the entrepreneur and not expect the opposite to occur. Thus, Management Accounting can express itself in a way that is understood, achieving its main purpose to assist in the daily decision making process.

Acknowledgments

Our thanks to the respondents of the case studies and to the participants in the 11th Annual International Conference on SMEs, Entrepreneurship and Innovation, for their contributions.

References:

- Abraham G. A. (1987). "Systems of discourse: Structures and semiotics in the social sciences", *Sociology of Religion*, Vol. 48, pp. 190-192.
- Azevedo R. F. L. (2010). "A percepção pública sobre os contadores: 'bem ou mal na foto'?", dissertation, University of Sao Paulo.
- Bakhtin M. M. (1997). *Estética da criação verbal* (trad. Maria Emsantina Galvão G. Pereira) (2nd ed.), Sao Paulo: Martins Fontes, pp. 289-326.
- Bebbington J. and Gray R. (2000). "Accounts of sustainable development: The constructions of meaning within environmental reporting", *Aberdeen Papers in Acct, Finance and Management Working Paper*, doi: 10.2139/ssrn.257438.
- Beuren I. M. and Erfurth A. E. (2010). "Pesquisa em contabilidade gerencial com base no futuro realizada no Brasil", *Contabilidade, Gestão e Governança*, Vol. 13, No. 1, pp. 44-58.
- Casa Nova S. P. (1997). "As empresas de pequeno porte e a contabilidade", *Caderno de Estudos FIECAFI*, Vol. 9, No. 15, pp. 60-74.
- Davison J. (2011). "Barthesian perspective on accounting communications and visual images of professional accountancy", *Accounting, Auditing & Accountability Journal*, Vol. 24, No. 2.
- Espejo M. M. S. B. and Villa P. (2012). "Do texto ao contexto: o uso da Contabilidade Gerencial pelas Pequenas Empresas sob a perspectiva teórica de Bakhtin", *EGEPE – Encontro de Empreendedorismo e Gestão de Pequenas Empresas*, pp. 1390-1407.
- Festinger L. (1975). *Teoria da Dissonância Cognitiva*, Rio de Janeiro: Zahar, pp.116-127.
- Jiambalvo J. (2002). *Contabilidade Gerencial*, Trad.: Tatiana Carneiro Quirico. Rio de Janeiro, LTC Editora.
- Macintosh N. B. and Baker C. R. (2002). "A literary theory perspective on accounting: Towards heteroglossic accounting reports", *Accounting, Auditing & Accountability Journal*, Vol. 15, No. 2.
- Mehralizadeh Y. and Sajady H. (2006). "A study of factors related to successful and failure of entrepreneurs of small industrial business with emphasis on their level of education and training", available online at: <http://ssrn.com/abstract=902045>.
- Mraovic B. (2008). "Bakhtin's theory of speech as human agency", *Social Responsibility Journal*, Vol. 4, No. 3.
- Raupp F. M. and Beuren I. M. (2003). *Metodologia da pesquisa aplicável às ciências sociais* (3rd ed.), Sao Paulo: Atlas.
- Sebrae–Serviço Brasileiro de Apoio às Micro e Pequenas Empresas (2004). "Fatores condicionantes e taxa de mortalidade de empresas no Brasil", Brasília (Aug.), available online at: <http://www.biblioteca.sebrae.com.br/bte>.
- Sebrae–Serviço Brasileiro de Apoio às Micro e Pequenas Empresas (2011a). "Taxa de sobrevivência das empresas no Brasil–outubro/2011", available online at: <http://www.biblioteca.sebrae.com.br/bds>.
- Sebrae–Serviço Brasileiro de Apoio às Micro e Pequenas Empresas (2011b). *Anuário do trabalho na micro e pequena empresa: 2010-2011* (4th ed.), Brasília: DIEESE. available online at: <http://www.biblioteca.sebrae.com.br/bds>.
- Souza M. A., Lisboa L. P. and Rocha (2003). "W. Práticas de Contabilidade Gerencial adotadas por subsidiárias brasileiras de empresas multinacionais", *Revista Contabilidade e Finanças–USP*, Vol. 32, pp. 40-57.
- Vicenzi E. (2009). "Psicanálise e linguística estrutural: As relações entre as concepções de linguagem e de significação de Saussure e Lacan", *Ágora* (Rio de Janeiro), Vol. 12, No. 1, pp. 27-40.
- Watzlawick P., Helmick J. and Jackson B. D. D. (2002). *Pragmática da Comunicação humana*, São Paulo: Cultrix, pp. 44-65.

Business Models Portfolios in International Markets: Management, Network Influence and Relationship Potential Effect

Mariusz Sagan

(Warsaw School of Economics, 02-554 Warsaw, Poland)

Abstract: The aim of this paper is to analyze management difficulties associated with the implementation process of new business models in Polish enterprises in foreign markets as well as with constructing their relationship potential. Additionally, the study aims at determining whether these enterprises do manage by a particular business model and if so, then what the nature of the management of the entire portfolio of their business models is (in the Polish and foreign markets). The studied enterprises do not manage by a business model in the Polish market as well as in foreign markets (they do not manage a portfolio of business models). Although they diversify their activity at home and abroad, they do not allocate resources, financing, communication channels etc. to the selected key segments of their customers. Firms should develop their relations and network competence which are crucial for adopting a management system grounded in business model portfolio management. For this purpose it is essential that they regroup their customer segments quicker.

Key words: business models; business model portfolios; management strategy; Polish enterprises; international environment

JEL code: M

1. Introduction

In the contemporary world economy, the access to resources and manufacturing technologies has long ceased to be the factors which determine the long-term competitive advantages. It is becoming indispensable for the markets which suffer from the supply surplus of industrial goods to devise proper customer relationship mechanisms (which involves flexibility in product and service design), including the needs assessment of the end-customers. One answer to this challenge is employment of a business model which, due to its configuration, allows allocating the appropriate resources and thus customized value to precisely selected customer segments. The technology revolution has increased the ability of businesses to design cooperation networks and hence to generate further resources. This in turn has facilitated reaching customers and analyzing their needs. Moreover, new specialist resources and competences, having appeared in firms, have affected new possibilities of customer service and opened additional space for designing new business models and managing competition strategies.

Business model management has therefore become an attractive alternative for modern enterprises in the area

Mariusz Sagan, Ph.D., Assistant Professor of Management, College of Business Administration, Warsaw School of Economics, Poland; research areas/interests: international management, business models, consumer behavior, management in public sector, city's strategies. E-mail: mariusz.sagan@sgh.waw.pl.

of competition at home but also in the area of international expansion. Polish firms, as business practice tells us, have been operating insufficiently in terms of the development strategy grounded in business models, and thus in terms of implementing the concepts of integrated management system. Therefore, it is highly relevant to conduct research which will determine the status, barriers and development opportunities for the concepts of business model management. A further problem is adapting new business models by Polish firms for expansion into new markets or in fact managing a business models portfolio for foreign markets.

2. Literature Review

The literature on the subject does not provide many studies (theoretical or practical) on the practices of business models portfolio management at home and abroad. In numerous articles published on the topic it is directly suggested to expand and intensify the research on the issue (Vives & Svejnova, 2011, pp. 239-240). It is proposed that an analysis of the relations between the processes of internationalization of an enterprise and new business model design be carried out, together with a similar analysis of the relations between the acquisition and takeover strategies and business model implementation process. It is highlighted that managing business models portfolios in foreign markets holds potential for conflict within companies since it makes it essential to include high complexity of international environment, which in turn requires further research (Vives & Svejnova, 2011, p. 240). However, the business model portfolio alone, included in one strategy, is highly significant for an enterprise: it serves to prepare the organization for functioning in a turbulent environment, as well as to protect it from losing competitiveness and to constitute an answer to any changes in the market speculation conditions.

K. Mason and S. Mouzas consider a possibility to implement flexible business models in organizations expanding internationally by analyzing the architecture of business model (including the structure of network relations and their types within this network), and analyzing the orientation of a particular business model (client-oriented, competition-oriented or cross-functional coordination-oriented). The flexibility of enterprises' operations can be expressed in their capability to effectively acquire resources from occasional suppliers (as it is a key factor constituting the architecture of a business model by its network and transactional character). The acquired transactional relationships, with simultaneous influence of the firm on the behavior of its partners within the network, enable quicker implementation and development of new innovative solutions for customers. Thus, it becomes possible and actually necessary to manage by flexible business models since they generate innovation (Mason & Mouzas, 2012, p. 1342). Moreover, in the network influence approach what is stressed is the diverse and multidimensional character of the relationships, which affects the structures of the network and, further, the structures of the organization. The ongoing interactions within the network, formed due to long-term formal and informal relationships, lead to acquiring knowledge, experience and trust from business partners. To conclude, the higher the network competence of an enterprise, the easier it is to manage by business model portfolio (Nair et al., 2012, p. 1652).

Additionally, the market orientation (customer orientation) is, according to the theory of enterprise, a significant premise facilitating business model management (and business model portfolio management), in configuration with efficient functioning within the network of formal and informal relationships (Mason & Mouzas, 2012, pp. 1344, 1361). The better the knowledge of customer needs, the easier it is to understand and conceptualize a business model and then to implement flexible business models. It is also highlighted in the subject literature that the more competition-oriented an organization is (particularly in correlation with network

competence), the easier it is for it to transfer to business model management.

Confidence in business partners gains in significance to become crucial, in the network economy and relationships (in foreign markets). The greater the trust, the easier it becomes to acquire resources and to design innovation, and consequently to diversify and develop the activity and business model management. An explicit characteristic of business network relationships is their infinity, which translates into the potential of businesses for expansion into new markets with new products and services for new target customer groups. While analyzing the issue from yet another perspective, it is worth to underline that the literature on the subject demonstrates the business model portfolio management by looking at the home and target market segmentation. It is then suggested, though without extensive empirical evidence, that the similarity in customer segment configuration between home and foreign markets promotes duplicating business models onto further foreign markets.

3. Methodology and Sample

In order to achieve the objectives set in the research the *case study* procedure was adopted and executed. It included the following stages: (1) Formulating the research questions, (2) Identifying the basic terminology associated with defining a business model, (3) Selecting the cases to be studied (three large firms, one in the service sector and two in the production sector, which all expand internationally and plan to intensify their expansion in the future), (4) Selecting the tools and procedures for data collection, (5) Data collection, (6) Analyzing the collected data internally, (7) Determining the cause and effect relations, and (8) Concluding and presenting recommendations for business.

The core tool for data collection on the businesses selected for study was interviewing the managers of those businesses with the use of a carefully drafted instrument—an in-depth interview questionnaire. The verification of the collected data was executed by analyzing other documentation on the studied businesses, their web content and customer opinions. Each interview in each of the three studied companies lasted 1.5 hours.

A significant stage of the entire research was identifying the basic terminology associated with defining a business model. Adopting the business model definition offered by A. Osterwalder and Y. Pigneur was the most significant decision in the research. The authors have assumed that it is possible to design a draft of a business model which includes the same elements and can be applied to any business (Osterwalder & Pigneur, 2010, pp. a-k). Their concept demonstrates that the business model construct incorporates 9 basic building blocks which concentrate on the offer, the customer, the infrastructure and financial credibility (see Table 1).

Incorporating the 9 blocks business model concept served to analyze whether the interviewed business is managed by business model in Poland and in foreign markets. It was essential for the analysis to determine whether the business selects customer segments as the core of its business model, and then whether it is capable of providing its customers with quality and whether it is capable of allocating resources, procedures and marketing communication to those selected customer segments. A similar research method was executed to analyze potential business model in foreign markets. It was assumed that if a business decides to adopt management by business lines or by product manufacture location (even though the remaining business model characteristics relate to the blocks used in the analysis) as its starting point to deliver value to its clients, it does not manage by business model.

Table 1 Business Model Construct

Business Model Building Block	Description	Key questions
1. Customer segments	Our groups of customers with distinct characteristics	Who do we create value for?
2. Value proposition	A bundle of products and services that satisfies a specific <i>customer segment's</i> needs	What do we offer the market?
3. Communication and distribution channels	The channels through which we communicate with our customers and through which we offer our value propositions	Through which communication and distribution channel do we reach our markets?
4. Customer relationships	Client relationships	Do we develop and maintain different types of client relationships in our business model (e.g., more or less intense, more or less personal)?
5. Revenue streams	The streams through which we earn our revenues from our customers for value creating and customer facing activities	What are our revenue streams?
6. Key resources	The key resources we need to make our business model function	What are the key resources we rely on to run our business model?
7. Key activities	The most important activities that have to be performed to run our business model	What are the main activities we operate to run our business model?
8. Partner network	The partners and suppliers we work with	Which partners and suppliers do we work with?
9. Cost structure	The costs we incur to run our business model	What are the most important cost positions in our business model?

Source: Osterwalder & Pigneur, 2010, pp. a-k.

4. The Challenges of Business Models Portfolios Management

The first of the studied companies, *Infinite* (IT/ICT sector), started in 2002 and ever since it has provided business with IT solutions, while its export expansion has been executed since 2006. The company revenue generated in 2012 was almost USD 10 million, and the export share in it was 4.59 percent. Since the beginning the key and the only sector in which the company chose to expand is the IT/ICT sector. The company employs 200 people, including its Polish division which gives work to 180 people. *Infinite* is a typical IT/ICT operator which offers the integration of various IT systems, most frequently set up on SAP and Oracle platforms, to its customers. It delivers its services to over 4000 customers.

4.1 Polish Market Business Model

The analysis of *Infinite* has resulted in the clear conclusion that in the Polish market the company does not manage by a business model but traditionally, that is by assigning the management system, marketing communication, customer relation development methods, resources, etc. to a single leading product — EDInet, which determines the company's high competitive position today. A single IT solution may become seriously problematic for this IT/ICT company in the future both in terms of maintaining the firm's competitiveness and due to lack of another market niche which the company would be able to go after (today *Infinite's* revenue is diversified and generated by several thousand of customers and several markets yet still based on one product family). Although today the company has been managing very well in identifying customer needs (by questionnaires, business meetings with customers, being present at conferences, competition solutions analyses), and its products are appreciated by its customers, while the competition offers their solutions at higher prices, the lack of product diversification may become a significant challenge to the business model of *Infinite* within several years to come. Yet another obstacle to implementing business model management in *Infinite* is that the company is not interested or involved in customer segmentation and does not plan to be, although it has engaged in

developing and running a series of conferences for its most profitable clients. The business relations acquired so far have been hardly processed and managed. The market perspective, therefore, demonstrates that the company is not prepared to implement a business model management system. However, certain solutions adopted in *Infinite* do indicate that with regard to management and processes executed within the company implementing business model management is achievable. The company uses around 30 KPIs to measure its performance (e.g., cost, synergic effects, customer satisfaction, customer profitability) and these indicators could be used to reformulate the existing business model into a new one. The primary focus is on financial results measured by analyzing the services, the profit generated by each customer and the profit generated by each service unit delivered. KPI measures the cost of servicing a single service unit or the hourly cost of programming service. Customer satisfaction is analyzed and graded on the basis of the results of annual customer satisfaction surveys. The company does not observe a concept of organizational perfection yet there are certain processes adopted within *Infinite*, which engage the entire organization into the process of perfection. One of these processes is the employee benefit program, grounded in Kaizen, and available to employees for optimizing organizational solutions.

4.2 Foreign Market Business Model

Infinite has been currently expanding its business into the central-eastern and southern European markets, particularly into Hungary, Croatia and Romania. Its products are present in 15 countries altogether. The key market is Hungary where ca. 60% of export revenue has been generated yearly. Via a Hungarian partner company *Infinite* has acquired 80% of the EDI market there. *Infinite* does not have any assets abroad, and its expansion, sales and cooperation models are based mostly on reseller network. Investments in the target markets are related to adapting the systems to local market requirements as well as to promotional expenses. Presently the company has been negotiating shares in foreign enterprises.

The model of operating in the Hungarian market which was thoroughly analyzed by *Infinite* has been an almost exact copy of the model the company executes in the Polish market. What it means is that the operations in the Hungarian market are not managed by business model, just as they are not on any other foreign market, which is demonstrated by the data collected in the company. Moreover, the system of managing foreign operations involves controlling them according to product categories (business lines) and not according to customer segments. In simple terms, implementing the business model portfolio management system in *Infinite* will be possible when the company adopts business model management in its domestic market. Paradoxically, it is possible to quickly copy the existing solutions into foreign markets and add further business models to the portfolio for international markets since the company executes the same strategies in all its markets of expansion. With effective management tools (including the KPI system) it is easy to coordinate the potential business model portfolio management. The process should be supported by a proper organization of foreign operations in which a separate division, coordinated by a domestic division, is responsible for foreign operations management.

The second in the studied group of companies, *Ursus S. A.* (operating within the machine-building and automotive industries, tractor, agricultural equipment and buses manufacturing) is the present owner and continuator of the *Ursus* brand tradition which is one of the most recognizable Polish brands worldwide. The company is listed on the WSE in Warsaw. It is seated in Lublin, Poland. The revenue generated in 2012 was EUR 50 million, with employment counting 660 people. The export share in the revenue is ca. 20%.

4.3 Polish Market Business Model

The analysis of the elements which constitute the business model for the four segments of buyers in the

Polish market indicates that *Ursus* does not manage its operation by a business model. It is further indicated by all the characteristics of individual components of the business model in the company. On the other hand, the company strategy openly states the necessity to adopt the management system based on business models. The confirmation of this approach in the company is certainly its planned diversification of business with setting up a strong division of bus and trolleybus manufacturing. This segment differs significantly from the farming segment, which should provoke the necessity to formulate the provisions of a new business model for this particular segment, eliminating the existent practices and planning exactly all operations for all its nine dimensions. A further argument in favor of adopting the business model management is provided by plans to regroup the traditional agricultural segments and to enter a new segment of heavy tractors at first in the Polish market. These operations should be facilitated by a thorough market research and customer needs analysis in Poland (along with superior relationships with the key dealers) as well as by acquiring the feedback on the company offer, which has actually become indispensable in today's highly competitive Polish market. The prime global companies, such as John Deere or New Holland, are able to successfully compete for the Polish buyers due to large scale production, excellent customer service and the beginning-of-the-year special offers with up to 30% discount on prices. In the case of *Ursus* and the arguments in favor of its prospects to implement the business model management it must be stressed that presently the company's revenue has been highly diversified yet its resources are focused on its core projects and are not scattered.

4.4 Foreign Market Business Model

Ursus S. A. is currently executing the strategy of intense international expansion. 20% of production is exported, and the major foreign markets generating up to 80% of export sales include Bosnia and Herzegovina, Serbia, Bulgaria, Romania, Slovakia, Lithuania, Nigeria and Ethiopia. Most transactions are completed via direct export through an independent distributor in the target market. Only in Bosnia and Herzegovina did *Ursus S. A.* choose to set up production and in 2012 opened a joint-venture assembly plant of 150 kW tractors.

As the empirical data collected in the company demonstrates, *Ursus S. A.* is not managed by business model in its foreign markets just as it is not in Poland. Therefore business model portfolio management in all foreign target markets of *Ursus* is non-existent. It may be assumed that if *Ursus* decides to implement business model management in the Polish market - which is in fact stipulated in the development strategy of the company - it will attempt also to implement business model management in its major foreign markets. Further grounds for this assumption include:

- (1) Entering the coach and trolleybus segment, assuming these will be exported as well,
- (2) Diversifying the business by designing and developing heavy tractors segment (e.g., in Ireland),
- (3) Planning to expand into new segments (e.g., light tractors) and into new countries, mainly African,
- (4) Developing the skills to build informal relationships in politically difficult markets (e.g., Bosnia and Herzegovina or Nigeria),
- (5) Controlling the sales in foreign markets-integrating simple export sales with the executed and planned operations of capital expansion within one division (Foreign Trade Division).

The last of the studied companies, *Sipma S.A.*, operates in the machine-building industry (agricultural equipment manufacturing) and employs around 400 people. Its revenue generated in 2012 fluctuated around EUR 40 million, of which 30% came from export.

4.5 Polish Market Business Model

As demonstrated by the results of a comprehensive empirical study, *Sipma* has adopted a hybrid management

approach. On the one hand, the company executes a traditional budgeting model, assigned to particular products and business lines, and on the other hand it consciously attempts to assign business activities to two key segments of buyers, which makes the company's management system closer to that by two business models. To its two separated segments of buyers: segment 1 — farmers with low income who make their choices on agricultural equipment based on its prices, and segment 2 — farmers for whom the key criterion by which to choose the machinery is its usefulness, the company attempts to deliver different value by diversification of the marketing tools and the distribution system. The company develops extraordinary relationships with its most profitable customers of segment 2, but does not with farmers who make their choices by low prices. *Sipma*, however, does not assign resources to particular segments, which is probably the major obstacle for transition into the business model management.

This supposition on business model management executed partially is confirmed by other activities of the enterprise. An argument supporting the thesis that it is possible to distinguish the conscious business policy aiming at implementing the business model management is an attempt to apply selected measuring tools for sales, customer satisfaction analyses for particular products, aftersales service, and the machinery failure rates for various buyer segments. *Sipma* is aware that the highest cost in its business models is generated by the technology and materials/semi-finished products. The process of adopting the full business model management should be significantly facilitated by the BSC, which includes the KPI system, which is already implemented in the company.

The remaining characteristic of *Sipma*'s business operations do not confirm or even object the concept of business model management. Most processes or sub-processes are designed by the general sales strategy, not by particular segment needs. Despite very effective customer needs analysis the company does not plan to regroup its customer segments. *Sipma* explains it by the market and customer idiosyncrasy. Yet the awareness of how customers view the offer value, particularly when the competition is able to offer lower prices in the domestic and foreign markets, should make the mentioned strategy an effective tool of balancing the income stream (e.g., several new segments), and thus reduce the number of unproductive niches which generate insignificant income. A further challenge is provided by the distribution channels which are not integrated enough. They often overlap, which results in occasional distribution conflict. Lacking a comprehensive CRM in the company constitutes additional obstacle. The conclusion of the overall analysis of *Sipma* is that the company has numerous favorable conditions for developing the business model management in the Polish market. Elimination of the indicated obstacles should be accompanied by designing an offer for the selected third segment of customers, the wealthiest farmers. Furthermore the range of products should be expanded to include the *Sipma*-manufactured advanced tractors and harvesters. The transformation will require investing in an internal R&D division for which the company has already received funds of PLN several dozen millions from the EU financing programs. With the expected synergies (advanced agricultural machinery operating on the technology integrated with tractors) the company will be able to regroup its strategic operations and customer segments quicker, and it will obviously achieve financial benefits.

4.6 Foreign Market Business Model

Sipma, with its 30% of revenue generated by export, sells its products on several dozen markets worldwide. The key foreign markets are Russia, Hungary, and Algeria — the three major foreign markets where the company operates — along with Ukraine, Kazakhstan, Uzbekistan and the Czech Republic. So far the company has not decided to begin production abroad, and has been selling its products through a network of independent dealers.

Sipma has subsidiaries in three countries — they focus on distribution and marketing.

Summing up the analyses results it should be highlighted that *Sipma* is not managed by business model in any of its foreign markets. Therefore it cannot be stated that the company manages by business model portfolio in its target markets. The major reason for this status quo is that the company does not assign resources, processes, marketing communication tools, etc. to the customer segments selected in its foreign target markets. Conversely, the company's operations in the Polish market prove its conscious and strategic approach to business, and its competence to manage by business model (and by business model portfolio) during its international expansion. The potential is particularly observed in:

- (1) Hybrid management in the Polish market (domestic market), partially based on business model management,
- (2) Accurate customer needs analysis and proper design of the distribution channels and marketing communication tools in foreign markets,
- (3) Segments similarly selected in the domestic and target markets,
- (4) A single segment superiority (or selling to one segment only) in the target markets. Hence designing a business model management may be facilitated by sequential selecting of new customer segments (which will construct a business model) in a target market and further markets marked as expansion targets,
- (5) Similarities between the Polish (domestic) market and several expansion target markets (e.g., the Hungarian market) — should facilitate the replication of the domestic business model onto the foreign target markets,
- (6) Awareness of costs generated for particular markets (that is for relatively homogeneous customer segments which are potential business models),
- (7) Model of international operations management in *Sipma*, which fosters the adoption of business model management. Such structure requires that the Marketing Director is responsible for both domestic and international sales. Each foreign market has a regional manager who is responsible for achieving the set sales targets. The managers of subsidiaries report to the regional manager and the regional manager reports to the Marketing Director. Managing a particular region should facilitate the situation in which a model of expansion (a business model) selected to be adopted in new markets is similar within one region (that is in a group of markets).

5. Results and Discussion

This paper has been an attempt to evaluate the extent to which the three studied Polish companies integrate management system based on business model attributes and to analyze whether (and how) they construct business model portfolio in the home and foreign markets which they expand into. The evaluation, in addition to systems analysis, refers to key conditions of business model design and the elements of its construct not only in foreign markets. These include flexibility, network relationships, their market orientation range etc. The study, therefore, attempts to become an answer to the claim posed in the beginning, particularly because Polish enterprises have so far been rarely studied in similar context, if at all. The research output has made it possible to formulate the following synthetic conclusions referring to the study objectives:

- (1) The studied enterprises do not manage by a business model in the Polish market as well as in foreign markets (they do not manage a business model portfolio). Although they diversify their activity at home and abroad, they do not allocate the resources, financing, communication channels etc. to the selected key segments of

their customers. Lacking business model management system in the home market is the key reason why the businesses do not manage business model portfolio in foreign markets. Another equally significant factor limiting the opportunities of Polish companies to design business models in international markets is low intensity of cooperation within international networks and its over-formalization. The factors which will facilitate the implementation of business model management in the studied firms are the strong market orientation and integrated management.

(2) The studied firms expand into foreign markets according to the Uppsala model. The process of relationship development in foreign markets is also sequential in nature. However it runs differently in each of the studied cases. The key conditions which determine the distinctness of the relationship creation process include the type of products and technologies offered to clients and the market character (its development stage and its geography). The research findings partly confirm the assumption that the range of formal and informal relationships as well as the sequentiality of their creation in foreign markets determine the pace of business model management implementation. Still weak network relationships (particularly the informal and transactional ones) prevent the studied businesses today from implementing the business model portfolio management system. And if the future does not bring any changes, they may still constitute a serious barrier for the diffusion of new business model, which will appear at home, to new target markets.

(3) Activity diversification in the studied enterprises does not translate into selecting business model management as the major management strategy since it is not accompanied by a strong foreign network partner orientation. Still low or average level of technological development in the studied businesses (despite the intense activities aimed at changing it in each company) leads to difficulties in implementing business model management even after the first attempts to regroup customer segments in order to select potential clients interested in technologically advanced solutions.

(4) The studied firms are convinced it is essential to implement the integrated management system and execute this concept in many aspects of their operating and strategic activities. Each of the studied companies integrates the strategic management (the vision, the objectives, the strategy) with the operational management. To achieve their business objectives the companies integrate not only the key functions of an enterprise (such as the marketing, the production, etc.) but also the components of the environment, health and quality management systems. Moreover, the companies in question cut the time spent on strategic planning and regularly search for new business opportunities and new market niches, thus developing their competence to anticipate any changes appearing in their environment. Such management conditions are a solid ground for implementing a full business model management and business model portfolio management in the analyzed companies in the future, which will speed up the process of creating changes and searching for new market space — that is a fully operating strategy for future functioning. An obstacle for executing a comprehensive management model based on integrated management in the studied businesses is a low level of network competence and an average skill to build trust-based business relationships (short- or long-term, tactical or strategic) with all network participants.

6. Limitations and Future Research Directions

The study is an introduction to further research extended onto more enterprises and intensified in the future. The research should focus on analyzing the relationship (and network) potential as well as on the management potential of Polish businesses expanding in foreign markets in terms of the prospects of implementing business

model portfolio management internationally. It should include a representative sample, which requires that concluding be quantity based. The research should also answer an important question (from the point of view of business practice) whether the diversification of activities in Polish firms translates into selecting business model management.

Moreover, it is highlighted in the subject literature in the world that the more competition-oriented an organization is (particularly in correlation with network competence), the easier it is for it to migrate to business model management. It is suggested to extend the research on the issue, which can be in the form of an analysis of how Polish businesses operating in foreign markets react to activities taken up by the competition (locally and internationally) and what the strong and weak points of this competition are (in the context of the possibilities to implement business model management). The literature on the subject demonstrates the business model portfolio management also by looking at the home and target market segmentation. It is proposed, conceptually and still without sufficient empirical evidence, that the similarity in customer segment configuration between home and foreign markets promotes duplicating business models onto further foreign markets. It is also suggested to verify the above assumption, based on the results of the research on Polish and international enterprises which manage a business model portfolio in at least several foreign markets.

Reference:

- Carmison C. and Villar-Lopez A. (2010). "Business models in Spanish industry: A taxonomy-based efficacy analysis", *Management*, Vol. 13, No. 4.
- Kachaner N., Lindgardt Z. and Michael D. (2011). "Innovating low-cost business models", *Strategy & Leadership*, Vol. 39, No. 2.
- Mason K. and Mouzas S. (2012). "Flexible business models", *European Journal of Marketing*, Vol. 46, No. 10, pp. 1340-1367.
- Nair S., Nisar A., Palacios M. and Ruiz F. (2012). "Impact of knowledge brokering on performance heterogeneity among business models", *Management Decision*, Vol. 50, No. 9, pp. 1649-1660
- Osterwalder A. and Pigneur Y. (2010). *Business Model Generation*, New York: John Willey&Sons.
- Vives L. and Svejnova S. (2011). "Business models: towards an integrative framework", *Management Research: The Journal of the Iberoamerican Academy of Management*, Vol. 9, No. 3, pp. 230-242.

Female Perceptions of Entrepreneurial Success Factors

Ruth Alas¹, Sinikka Vanhala², Tiit Elenurm¹, Elizabeth J. Rozell³, Wesley A. Scroggins³

(1. Estonian Business School, Estonia; 2. Aalto University School of Business, Finland; 3. Missouri State University, USA)

Abstract: This study examines female perceptions of entrepreneurial attributes. Results from 27 countries all over the world indicate more similarities in features inhibiting to a person being a successful entrepreneur between countries than in characteristics contributing to a person being a successful entrepreneur.

Key words: female perceptions; entrepreneurial attributes; entrepreneur

JEL codes: F23, M13, M160

1. Introduction

In recent decades there has been a marked increase in the interest in entrepreneurship as a change facilitator both in advanced and emerging market economies (Bosma et al., 2007). Imperative to the success of entrepreneurs are those characteristics and traits linked to entrepreneurial behaviour. While such characteristics have been identified (Rauch & Frese, 2007), the question remains as to how these characteristics may differ across countries due to such characteristics as the population, economic development, economic freedom and cultural dimensions.

This study examines female perceptions of entrepreneurial success factors. The paper reflects results of the second stage of the broader international research program “Entrepreneurship Work in Organizations Requiring Leadership Development” (E-WORLD).

The paper starts with theoretical background for this study, followed by results of empirical surveys in 27 countries.

2. Theoretical Framework and Research Questions

2.1 Gender and Entrepreneurship

Gender in entrepreneurship is receiving increasing attention around the world (DeBruin et al., 2006; Madichie, 2009; Merdza, 2009; Haus et al., 2013; Welsh, 2013). Although the majority of entrepreneurs still are men, the number of female entrepreneurs is gradually growing in most countries. However, the growth rate has

Ruth Alas, Ph.D., Head of the Management Department, Estonian Business School; research areas/interests: change management, leadership, values, ethics and corporate social responsibility. E-mail: ruth.alas@ebs.ee.

Sinikka Vanhala, Ph.D., School of Business, Aalto University; research areas/interests: human resource management. E-mail: sinikka.vanhala@aalto.fi.

Tiit Elenurm, Ph.D., Head of the Entrepreneurship Department, Estonian Business School; research areas/interests: entrepreneurship, knowledge management. E-mail: tiit.elenurm@ebs.ee.

Elizabeth J. Rozell, Ph.D., Missouri State University; research area/interests: entrepreneurship, emotional intelligence, leadership; E-mail: erozell@missouristate.edu.

Wesley A. Scroggins, Ph.D., Missouri State University; research areas/interests: entrepreneurship, human resources. E-mail: wesscroggins@missouristate.edu.

been relatively slow. According to an OECD report (Piacentini, 2013), compared with women, men are three times more likely to have a business with employees, and their companies are larger. According to the report, the proportion of female employers was highest in Canada, Brazil, and the EU27 (a bit over 25%); the US followed. The change from 2000 to 2011 was largest in Chile and Mexico among the countries/country clusters compared. In addition to a smaller number of female than male entrepreneurs, women's companies are typically smaller, less successful (e.g., measured by annual sales, employment growth, income, and venture survival) and operate in female-dominated (socially oriented) industries (McClelland et al., 2005; Kepler & Shane, 2007; Piacentini, 2013).

Women entrepreneurs typically operate in the service sector or other female dominated industries (McClelland et al., 2005), which are labor intensive and offer less growth potential, while male entrepreneurs operate more often in capital intensive industries. Combining work and private life, especially family, is an important motive for women to start a business (Kovalainen, 1995). A meta-analysis by Haus et al. (2013) revealed, however, only a weak relationship between gender and entrepreneurial intention (EI), which they interpreted to indicate that the higher number of male entrepreneurs cannot be explained solely by differences in motivation. The study also showed differences in gender-EI relationship between Europe and the US (indicating lower EI for European and higher for American women) and also between students and non-students (female students had a stronger EI than male students while female non-students had a weaker EI than male non-students). In addition to motivational, educational and other individual-level explanations related to women's lower proportions as entrepreneurs and their smaller and less successful companies, there are, actually, a number of culture-related explanations such as cultural norms, stereotypes, and the lack of role models (Kepler & Shane, 2007; Gupta et al., 2009; Piacentini, 2013). Women's opportunities to acquire key business resources, such as access to business networks, financial capital, and management experience are also small compared to men.

2.2 The Cultural Context of Entrepreneurship

Huisman (1985) found significant variation in entrepreneurial activity across cultures and noted that cultural values greatly influence entrepreneurial behaviour. Examples of personality dimensions believed to be culturally determined include innovativeness, locus of control, risk-taking and energy level (Thomas & Mueller, 2000).

Culture has been defined as a set of shared values and beliefs as well as expected behaviours (Hofstede, 1980). Hayton et al. (2002) posit that cultural values serve as a filter for the degree to which a society considers certain entrepreneurial behaviours as desirable. According to House and Javidan (2004), there are two distinct kinds of cultural manifestations — values and practices — and nine core cultural dimensions in the GLOBE project: uncertainty avoidance, power distance, institutional collectivism, in-group collectivism, gender egalitarianism, assertiveness, future orientation, performance orientation and humane orientation.

Global Entrepreneurship Monitor (GEM) surveys have demonstrated that role models of successful entrepreneurs are an important driver of new entrepreneurial initiatives (Bosma et al., 2012). GEM (Xavier et al., 2013) analyses societal beliefs related to early-stage entrepreneurship such as whether starting a business is considered a beneficial career choice and if entrepreneurship is associated with high status and positive media attention. There is, however, a need to study in addition to general societal beliefs, specific features attributed to successful entrepreneurs in different cultures because such beliefs likely influence the nature of entrepreneurial initiatives and also influence the support or rejection of entrepreneurs by other stakeholders in the society.

Western influences have significantly dictated entrepreneurship theoretical development over the last century (Sidani, 2008). The aim of the E-WORLD project is to broaden the existing cross-cultural research on entrepreneurship as it relates to gender.

2.3 Implicit Leadership Theory and the Entrepreneurship Framework

The theory that guides the advancement of the entrepreneurship framework used in the current study is an assimilation of implicit leadership theory (Lord & Maher, 1991) and value-belief theory of culture (Hofstede, 1980; Triandis, 1995). Implicit leadership theory purports that individuals have implicit beliefs, convictions, and assumptions concerning attributes and behaviours that differentiate leaders from subordinates and effective leaders from non-effective ones. We take this same concept and apply it to the entrepreneurship area. In essence, we propose that individuals have implicit beliefs about successful entrepreneurs as well. That is, entrepreneurial qualities, characteristics and behaviours are attributed to entrepreneurial individuals and, hence, those same individuals are socially accepted as successful entrepreneurs. These qualities or implicit entrepreneurship theories influence the actions and effectiveness of entrepreneurs and people that can support or inhibit their entrepreneurial initiatives. In this chapter we have applied the framework of cultural dimensions in an entrepreneurial context. In the entrepreneurial context it is important to understand differences between implicit beliefs of entrepreneurs-practitioners and potential entrepreneurs, including business students. Future development trends of entrepreneurship are influenced by features that are attributed to present successful entrepreneurs by young people that are considering entrepreneurial careers. Therefore, implicit/attribution entrepreneurship theory is used as the basis for conducting comparative cross-cultural entrepreneurship research. Nations have developed different entrepreneurial prototypes based upon specific cultural factors and dynamics. It is important for entrepreneurs in a given culture to match the prototype of the successful entrepreneur for that culture. The degree to which an individual matches the cultural entrepreneurial prototype may affect the feedback received from others and their motivation to engage in entrepreneurial behaviour. It may also affect the willingness of others to follow or fund them in the new business activity. The major research questions are:

- (1) How do entrepreneurial characteristics differ by gender regarding perceptions that contribute or inhibit a person from being a successful entrepreneur?
- (2) How do entrepreneurial characteristics differ by previous business ownership experience regarding perceptions that contribute or inhibit a person being a successful entrepreneur?

3. Research Methodology

The research methodology is based on combining qualitative and quantitative research stages. At the first stage of the research, focus groups were conducted in all participating countries. At the start of the focus groups, participants were informed that they were participating in a cross-cultural research project. Participants were also informed that the purpose of the focus group was to understand characteristics of successful entrepreneurs in different countries. Focus groups consisted of entrepreneurs, employees of entrepreneurial ventures, entrepreneurship support organizations, and students that were involved in entrepreneurship and/or management studies.

Both focus group data and literature review information were subjected to taxonomic analysis (Krueger, 1998) to identify the attributions made of entrepreneurs in each country. Krueger defines taxonomy as a set of categories organized on the basis of relationships. A taxonomy shows the relationships between things that together comprise a cultural domain. This allowed for the identification of similarities and differences in entrepreneurial prototypes across the countries. Focus group results were used for developing a survey questionnaire to use at the second stage of the research study.

The survey tool included 115 characteristics and behaviours of successful entrepreneurs that were based on prototypes of successful entrepreneurs that reflected focus group results. The questionnaire development process followed to some degree the procedure conducted by the Project GLOBE researchers (House et al., 2004) in the development of the GLOBE leadership questionnaire. Several characteristics of entrepreneurs that were noted in the focus groups were similar to characteristics of leaders used in the GLOBE questionnaire.

First, after studying input from the focus groups, principal E-WORLD investigators met together to examine the taxonomic analyses and identify the major entrepreneurial characteristics, traits, and behaviours reported in these analyses. Investigators examined individual country taxonomies and listed those factors that appeared most important for comprising the entrepreneurial prototype. All investigators had to agree that the item was important enough to be included in the list based on frequency of report and importance in the taxonomy. For countries in which language differences were an issue, the questionnaire was translated into the host country language by host country E-WORLD collaborators and back-translated into English by associates of the principal investigators who were fluent in the particular language.

In the current paper we analysed results from 6168 respondents from 27 countries listed in Appendix 1.

The survey instructions gave definition of each characteristic or behaviour. Respondents were asked to rate each characteristic, trait, and behaviour (questionnaire item) on a 7 point Likert type scale indicating the degree to which they felt the characteristic, trait, or behaviour either impeded or facilitated entrepreneurs in their country. The scale varied between 1 (this behaviour or characteristic greatly inhibits a person from being a successful entrepreneur) and 7 (this behaviour or characteristic contributes greatly to a person being a successful entrepreneur). Demographic data about age, gender, country of birth and residence, education, work and entrepreneurship experience of respondents was also collected.

4. Results

A principal component factor analysis with varimax rotation was completed for the 115 items on the survey for all countries (Appendix 2). Items were selected which had a factor loading on only one factor above 0.30 and which loaded below 0.30 on other factors. Three factors resulted from the analysis. The three factors comprised 38.9% of initial variability.

The first factor was called “*innovative opportunity seeker*”. It indicates innovative people looking carefully at changes in economic environment and markets, in order to find opportunities to conduct business and meet unmet needs.

The second factor consists from characteristics inhibiting a person from being a successful entrepreneur and was called “*negative behavioural patterns*”. This includes arrogance, dishonesty, non-delegator and other characteristics.

The third factor includes “*positive behavioural patterns*” like compassionate, loyal, self-sacrificial and others.

4.1 Comparison according to Gender

Results indicate that female respondents perceive entrepreneurs as more innovative opportunity seekers, having less negative and less positive behavioural patterns than do male respondents (Table 1). According to T-tests, all 3 factors are statistically significantly different. Females view successful entrepreneurs as being intelligent and administratively skilled, while male respondents perceive successful entrepreneurs as driven team

Female Perceptions of Entrepreneurial Success Factors

builders (Table 2). Among the 10 most negative features of entrepreneurs, females list domineering and males report the most negative characteristic as being cautious.

Table 1 The Gender and Success Factors of Entrepreneurs

Gender		Mean Factor 1	Mean Factor 2	Mean Factor 3
Male	2497	5.87	3.38	4.54
Female	2200	5.93	3.21	4.47

Table 2 10 Most Positive and 10 Most Negative Features of Successful Entrepreneurs: Comparison According to Gender

Male (N = 2665)		Female (N = 2356)	
10 most positive means			
Opportunity awareness	6.23	Effective negotiator	6.34
Effective negotiator	6.20	Open minded	6.31
Innovative	6.20	Intelligent	6.29
Open minded	6.17	Opportunity awareness	6.29
Driven	6.16	Innovative	6.28
Creative	6.16	Understand their business	6.27
Understand their business	6.15	Good judgement	6.26
Good judgement	6.15	Creative	6.26
Team builder	6.14	Administratively skilled	6.25
Constantly learning	6.14	Constantly learning	6.25
10 most negative			
Dishonest	1.94	Dishonest	1.79
Subdued	2.61	Cynical	2.36
Nondelegator	2.68	Subdued	2.46
Cynical	2.71	Avoids negatives	2.58
Arrogant	2.74	Nondelegator	2.59
Avoids negatives	2.83	Arrogant	2.67
Loner	2.95	Loner	2.78
Ruthless	3.10	Ruthless	2.94
Cautious	3.53	Micromanager	3.30
Micromanager	3.54	Domineering	3.38

4.2 Comparison according to Experience

Results of the comparison of females according to experience as entrepreneurs indicate that female respondents with entrepreneurship experience differ from other female respondents only according to their evaluation on the first factor: they find innovative opportunity seeking more important (Table 3). They also find administrative skills and intelligent less important (Table 4).

Table 3 Comparison of Females according to Experience as Entrepreneurs and Success Factors of Entrepreneurs

Have you ever owed a business?		Mean Factor 1	Mean Factor 2	Mean Factor 3
Yes	753	6.05	3.22	4.60
No	2077	5.94	3.24	4.58

Female Perceptions of Entrepreneurial Success Factors

Results of comparison of males according to experience as entrepreneurs indicate that male respondents with entrepreneurship experience differ from other male respondents also only according to their evaluation on the first factor: they find innovative opportunity seeking more important (Table 5). Male respondents with entrepreneurship experience perceive successful entrepreneurs as more positive, as continuous learning problem solvers who understand their business more than others, who emphasize administrative skills, team building, and creativity and intelligence more than others (Table 6). The 10 most negative features do not significantly differ.

Table 4 10 Most Positive and 10 Most Negative Features of Successful Entrepreneurs: Comparison of Females According to Experience As Entrepreneurs

Have you ever owned a business? Yes (N = 753)		Have you ever owned a business? No (N = 2077)	
10 most positive means			
Opportunity awareness	6.49	Administratively skilled	6.34
Problem solving	6.49	Intelligent	6.33
Open minded	6.45	Effective negotiator	6.30
Innovative	6.45	Understand their business	6.28
Driven	6.43	Opportunity awareness	6.28
Adapt to new environments quickly	6.42	Innovative	6.28
Constantly learning	6.40	Open minded	6.27
Positive	6.40	Good judgment	6.26
Effective negotiator	6.40	Creative	6.26
Creative	6.40	Constantly learning	6.25
10 most negative means			
Dishonest	1.73	Dishonest	1.80
Cynical	2.17	Cynical	2.32
Nondelegator	2.43	Avoids negatives	2.44
Arrogant	2.53	Subdued	2.48
Avoids negatives	2.61	Nondelegator	2.61
Subdued	2.63	Arrogant	2.62
Loner	2.79	Loner	2.79
Ruthless	2.87	Ruthless	2.99
Domineering	3.35	Domineering	3.43
Indirect	3.37	Cautious	3.55

Table 5 Comparison of Males According to Experience as Entrepreneurs and Success Factors of Entrepreneurs

Have you ever owed a business?		Mean Factor 1	Mean Factor 2	Mean Factor 3
Yes	1225	5.98	3.34	4.53
No	1571	5.83	3.40	4.58

Female Perceptions of Entrepreneurial Success Factors

Table 6 10 Most Positive and 10 Most Negative Features of Successful Entrepreneurs: Comparison of Males According to Experience as Entrepreneurs

Have you ever owned a business? Yes (N = 1285)		Have you ever owned a business? No (N = 1687)	
10 most positive means			
Opportunity awareness	6.36	Opportunity awareness	6.19
Innovative	6.33	Effective negotiator	6.18
Effective negotiator	6.33	Innovative	6.17
Problem solving	6.33	Administratively skilled	6.16
Driven	6.31	Creative	6.16
Positive	6.30	Open minded	6.15
Understand their business	6.29	Team builder	6.15
Open minded	6.29	Intelligent	6.13
Constantly learning	6.28	Good judgment	6.12
Good judgment	6.25	Driven	6.11
10 most negative means			
Dishonest	1.90	Dishonest	1.98
Cynical	2.45	Subdued	2.67
Subdued	2.56	Nondelegator	2.72
Nondelegator	2.57	Cynical	2.74
Arrogant	2.65	Arrogant	2.74
Avoids negatives	2.88	Avoids negatives	2.76
Loner	2.92	Loner	2.92
Ruthless	3.09	Ruthless	3.13
Micromanager	3.42	Cautious	3.58
Cautious	3.53	Micromanager	3.69

5. Discussion

The aforementioned results indicate that although there are gender similarities according to perceptions of successful entrepreneurs, there are statistically significant differences as well. Females perceive attributes of successful entrepreneurs in a more traditional light, while males embrace the ideal entrepreneur using a more assertive view. This is especially true when looking at the results from the characteristics noted for inhibiting entrepreneurs. Females noted that being domineering would inhibit entrepreneurial success while males reported that being cautious would adversely affect success. Both groups noted that dishonesty would impede performance as an entrepreneur.

Interesting results emerged when previous entrepreneurship experience was considered. For females, those that previously owned their own business reported that successful entrepreneurs needed to be creative strategizers in order to be successful. Females that were not previous business owners reported that being administratively skilled and intelligence were important for success. Regardless of previous work experience, females believed that dishonesty was a significant impediment for successful entrepreneurial endeavors.

For males that were previous business owners, the most positive attributes noted were being able to see opportunities, being innovative and a good problem-solver. For those males that had not previously owned their own business, similar results for females overall emerged. Dishonesty was noted by both male samples as a major impediment to success.

It is interesting to note that although the current study shows that there are gender and previous experience differences in perceptions of successful entrepreneurs, it is also noteworthy that all samples indicated that the attribute of dishonesty was viewed as an impediment to success. These findings are important for global entrepreneurs to know as they conduct entrepreneurial endeavors world-wide. Although cultural norms vary throughout the world, it appears that regardless of such differences in value systems perceptions relative to characteristics that impede successful entrepreneurial endeavors transcend culture.

6. Conclusions

A comparison of survey results in 27 countries indicates similarities and differences between countries according to characteristics of successful entrepreneurs. In the current study we conducted factor analysis to group these characteristics and we found 3 factors, two connected with behavioural patterns and one with opportunity seeking skills. We also found 10 most positive and 10 most negative features of successful entrepreneurs according to gender of respondents and their previous experience being the owner of enterprise themselves.

Results indicate that female respondents perceive entrepreneurs as more innovative opportunity seekers, and as having less negative and less positive behavioural patterns than do male respondents. Females perceive successful entrepreneurs as intelligent and administratively skilled, but male respondents perceive them as driven team builders. Among the 10 most negative features of entrepreneurs' females list domineering and males perceive the attribute of being cautious.

Results of comparison of females and males according to experience as entrepreneurs indicate that respondents with entrepreneurship experience find innovative opportunity seeking more important. Female entrepreneurs find administrative skills and intelligence less important. Male respondents with entrepreneurship experience perceive successful entrepreneurs as more positive, as constantly learning problem solvers who understand their business more than others, who emphasize administrative skills, team building, creativity and intelligence more than others. To conclude, results indicate that there are more similarities in negative features between genders.

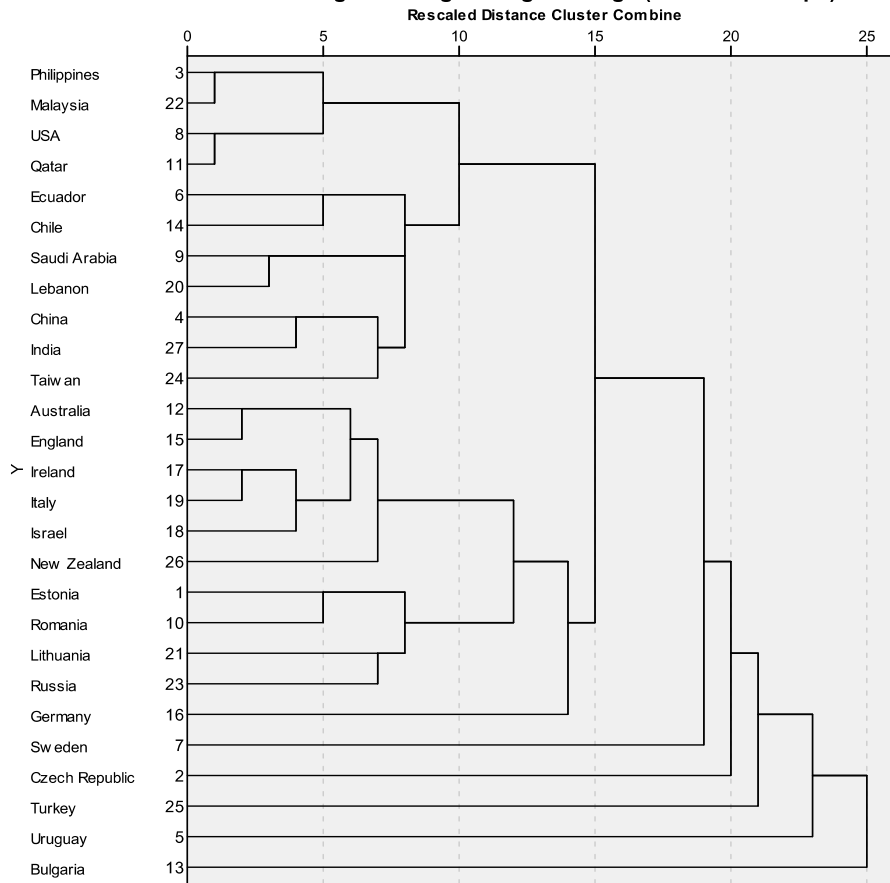
References:

- Aidis R., Estrin S. and Mickiewicz T. M. (2012). "Size matters: entrepreneurial entry and government", *Small Business Economics*, Vol. 39, No. 1, pp. 119-139.
- Bosma N., Jones K., Autio E. and Levie J. (2007). *Global Entrepreneurship Monitor 2007 Executive Report*, Babson College and London Business School.
- Bosma N., Hessels J., Schutjens V., Praag M. and Verheul I. (2012). "Entrepreneurship and role models", *Journal of Economic Psychology*, Vol. 33, No. 2, pp. 410-424.
- DeBruin A., Brush C. G. and Welter F. (2006). "Introduction to the special issue: Towards building cumulative knowledge on women's entrepreneurship", *Entrepreneurship Theory & Practice*, Vol. 30, pp. 585-592.
- Drucker P. F. (1985). *Innovation and Entrepreneurship: Practice and Principle*, Harper Business, New York.
- Gupta V. K., Turban D. B., Wasti S. A. and Skidar A. (2009). "The role of gender stereotypes in perceptions of entrepreneurs and intentions to become an entrepreneur", *Entrepreneurship Theory & Practice*, Vol. 33, No. 2, pp. 397-417.
- Haus I., Steinmetz H., Isidor R. and Kabst R. (2013). "Gender effects on entrepreneurial intention: A meta-analytical structural equation model", *International Journal of Gender and Entrepreneurship*, Vol. 5, No. 2, pp. 130-156.
- Hayton J. C., George G. and Zahra S. A. (2002). "National culture and entrepreneurship: A review of behavioural research", *Entrepreneurship Theory and Practice*, Summer 2002, pp. 33-52.
- Hofstede G. (1980). *Culture's Consequences: International Differences in Work-Related Values*, Beverly Hill, CA: Sage Publications.
- Hofstede G. (2001). *Culture's Consequences: International Differences in Work Related Values* (2nd ed.), Thousand Oaks, CA: Sage.

- Hofstede G., Hofstede G. J. and Minkov M. (2010). *Cultures and Organizations: Software of the Mind — Intercultural Cooperation and Its Importance for Survival*, New York: McGraw-Hill.
- House R. J., Hanges P. W., Javidan P. W., Dorfman M. P. and Gupta V. (Eds.) (2004). *Culture, Leadership, and Organizations: The GLOBE Study of 62 Societies*, Thousand Oaks, A, Sage Publications.
- Huisman D. (1985). "Entrepreneurship: Economic and cultural influences on the entrepreneurial climate", *European Research*, Vol. 13, No. 4, pp. 10-17.
- Kepler E. and Shane S. (2007). "Are male and female entrepreneurs really that different?", The Office of Advocacy Small Business Working Papers, available online at: <http://www.sba.gov>.
- Kovalainen A. (1995). *At The Margins of the Economy: Women's Self-Employment in Finland, 1960-1990*, Avebury, Aldershot.
- Krueger N. F. and Brazeal D. V. (1994). "Entrepreneurial potential and potential entrepreneurs", *Entrepreneurship, Theory and Practice*, Vol. 18, No. 3, pp. 91-104.
- Krueger R. A. (1998). *Analyzing and Reporting Focus Group Results*, Thousand Oaks, CA: Sage Publications.
- Lord R. and Maher K. J. (1991). *Leadership and Informational Processing: Linking Perceptions and Performance*, Boston: Unwin-Everyman.
- McClelland D. C. (1961). *The Achieving Society*, Princeton, NJ: Von Nostrand Reinhold.
- McCelland E., Swail J., Bell J. and Ibbotson P. (2005). "Following the pathway of female entrepreneurs: A six country investigation", *International Journal of Entrepreneurial Behavior & Research*, Vol. 11, No. 2, pp. 84-107.
- Miller T., Holmes K. R. and Feulner E. (2012). *Highlights of the 2012 Index of Economic Freedom*, The Heritage Foundation.
- Minkov M. and Hofstede G. (2011). "The evolution of Hofstede's doctrine", *Cross Cultural Management: An International Journal*, Vol. 18, No. 1, pp. 10-20.
- Mueller S. L. and Thomas A. S. (2000). "Culture and entrepreneurial potential: A nine country study of locus of control and innovativeness", *Journal of Business Venturing*, Vol. 16, pp. 51-75.
- Piacentini M. (2013). "Women entrepreneurs in the OECD: Key evidence and policy challenges", OECD SocialL, Employment and Migration Working papers, available online at: <http://www.ecwt.eu/digitalcity/servlet/PublishedFileServlet/AAADEDIB/OECD-Report-Entrepr-2013.pdf>.
- Rauch A. and Frese M. (2007). "Let's put the person back into entrepreneurship research: A meta-analysis on the relationship between business owners' personality traits, business creation, and success", *European Journal of Work and Organizational Psychology*, Vol. 16, No. 4, pp. 353-385.
- Shane S. A. (2003). *A General Theory of Entrepreneurship: The Individual-opportunity Nexus*, Edward Elgar, Northampton, MA.
- Schumpeter J. (1928). "The instability of capitalism", *Economic Journal*, Vol. 38, pp. 361-386.
- Sidani Yusuf (2008). "Ibn Khaldun of North Africa: An AD 1377 theory of leadership", *Journal of Management History*, Vol. 14, No. 1, pp. 73-86.
- Triandis H. C. (1995). *Individualism and Collectivism*, Boulder, CO: Westview Press.
- Xavier S. R., Kelley D., Kew J., Herrington M. and Vorderwülbecke A. (2013). "Global entrepreneurship monitor: 2012 global report", Global Entrepreneurship Research Association, accessed on 10.02.2013, available online at: <http://www.gemconsortium.org/docs/2645/gem-2012-global-report>.
- Wang R. (2012). "Chinese culture and its potential influence on entrepreneurship", *International Business Research*, Vol. 5, No. 10, pp. 76-90.
- Welsh D. H. B., Memili E., Kaciak E. and Ahmed S. (2013). "Sudanese women entrepreneurs", *Journal of Developmental Entrepreneurship*, Vol. 18, No. 2, p. 1.

Female Perceptions of Entrepreneurial Success Factors

Appendix 1 Countries in Current Study
Dendrogram using Average Linkage (Between Groups)



Appendix 2 Rotated Component Matrix

	Component		
	1	2	3
Opportunity awareness	0.772	-0.053	0.034
Innovative	0.761	-0.051	0.030
Adapt to new environments quickly	0.756	-0.013	0.108
Open minded	0.756	-0.083	0.076
Good judgement	0.739	-0.123	0.119
Effective negotiator	0.736	-0.098	0.019
Resourceful	0.730	-0.020	0.092
Driven	0.723	0.068	0.069
Dynamic	0.723	-0.010	0.068
Creative	0.721	-0.078	0.080
Constantly learning	0.711	-0.097	0.190
Understand their business	0.709	-0.060	0.126
Motivator	0.697	-0.057	0.098
Can judge and make decisions from the perspective of an opponent	0.685	0.022	0.136

(To be continued)

Female Perceptions of Entrepreneurial Success Factors

(Continued)

Improvement oriented	0.680	-0.116	0.174
Problem solving	0.679	-0.057	0.139
Personal strength	0.676	0.077	0.105
Investigation skills	0.675	-0.028	0.197
Strong initiative	0.671	0.037	0.011
Intelligent	0.671	-0.087	0.122
Team builder	0.668	-0.174	0.181
Resistance to stress	0.667	-0.011	0.008
Perseverance	0.664	0.051	0.157
Flexible	0.648	-0.074	0.113
Intuitive	0.646	0.043	0.060
Brave in the face of difficulties	0.640	0.063	0.168
Prepared	0.639	-0.061	0.173
Self-confident	0.639	0.139	0.116
Coordinator	0.630	-0.029	0.208
Networking	0.628	-0.031	0.188
Ability to start with few resources	0.623	0.025	0.043
Diplomatic	0.606	-0.162	0.201
Enthusiastic	0.591	-0.062	0.139
Convincing	0.590	0.111	0.056
Positive	0.582	-0.083	0.121
Business experience	0.580	0.063	0.167
Anticipatory	0.580	-0.063	-0.012
Competitive	0.573	0.275	0.022
Decisive	0.568	0.069	-0.024
Entrepreneurial links	0.565	0.162	0.161
Desire to change things	0.563	0.168	0.080
Ambitious	0.559	0.147	-0.052
Defines clear, concrete, and measurable goals	0.558	-0.047	0.200
Informed	0.534	-0.036	0.136
Having a different view of the market	0.529	0.129	0.173
Dependable	0.508	-0.188	0.233
Well connected	0.495	0.210	0.096
Never yielding in the face of failure	0.487	0.108	0.115
Courageous	0.486	0.146	0.228
Political links	0.425	0.267	0.070
Tolerance for ambiguity	0.403	0.122	0.100
Lucky	0.364	0.268	0.089
Independent	0.361	0.195	0.036
Willful	0.354	0.274	0.020
Unique	0.349	0.193	0.220

(To be continued)

Female Perceptions of Entrepreneurial Success Factors

(Continued)

Arrogant	-0.159	0.606	-0.017
Dishonest	-0.269	0.601	-0.055
Domineering	0.064	0.596	0.019
Ruthless	-0.046	0.575	-0.126
Cynical	-0.228	0.561	0.118
Stubborn	0.138	0.529	0.006
Loner	-0.164	0.495	0.201
Autocratic	0.042	0.483	0.035
Nondelegator	-0.206	0.480	0.232
Wary of people who will copy their idea	0.173	0.470	0.195
Dissatisfied with former employment	0.098	0.399	-0.019
Masculine characteristics	0.287	0.348	0.049
Compassionate	0.153	-0.074	0.622
Procedural	0.177	0.015	0.582
Indifferent to personal gains	0.074	0.046	0.573
Cautious	-0.045	0.150	0.573
Loyal	0.292	-0.119	0.550
Likes security/stability	0.047	0.211	0.549
Sincere	0.294	-0.146	0.540
Not profit oriented	0.029	0.002	0.539
Class conscious	0.124	0.266	0.514
Self-sacrificial	0.255	0.144	0.401
Tactful	0.275	0.053	0.324

The Relationship between Corporate Social Responsibility and Competitiveness in Mexican SMEs

Sandra Yesenia Pinzon Castro, Gonzalo Maldonado Guzman, Maria del Carmen Martinez Serna
(Autonomous University of Aguascalientes, Mexico)

Abstract: Our society is changing the way of making business; it is changing the competitiveness rules among the organizations and it is demanding a bigger involvement of the companies in the ethical aspects of businesses. Thus, the concept of Corporate Social Responsibility has become important as an approaching strategy between firms and society. For this reason, this paper attempts to analyze the effects of Corporate Social Responsibility at the level of competitiveness in Mexican small and medium-sized enterprises. The empirical analysis was carried with a sample of 397 enterprises. The results obtained show that Corporate Social Responsibility has positive effects at the small and medium-sized enterprises competitiveness level.

Key words: corporate social responsibility; competitiveness; small and medium-sized enterprises

JEL code: M14

1. Introduction

The development of the concept Corporate Social Responsibility (CSR) started in the 1950s when the literature focused for the first time in the responsibility of businessmen from the most important U.S. firms (Bowen, 1953). Then, in the 1980s, it made an emphasis in the theory of the stakeholders (Freeman, 1984); by the 1990s most of the studies were analyzing the relationship between CSR and the financial development of the organizations (Roman et al., 1999). Finally, in the first decade of the new century, it centered its attention in the analysis and discussion of the CSR in small and medium-sized enterprises (SMEs), mostly in developing countries and Europe (Nielsen & Thomsen, 2009).

Thus, the debate and discussion of CSR have increased considerably in the literature in recent years (Crawford & Scaletta, 2005), with satisfactory results (Williams, 2005). It has become important for researchers and academics (Ogrizek, 2002; Knox et al., 2005), and for the agenda of most governments and public authorities (Nielsen & Thomsen, 2009), which are pressing that most of the SMEs adopt the CSR as part of their business strategies in order to improve the ethical codes and the behavior of the firms (Luetkenhorst, 2004).

On one hand, the fast development of business in developed and developing countries is demanding from the

Sandra Yesenia Pinzon-Castro, Ph.D., Autonomous University of Aguascalientes; research areas/interests: innovation, marketing, and market orientation. E-mail: sypinzon@correo.uaa.mx.

Gonzalo Maldonado-Guzman, Ph.D., Autonomous University of Aguascalientes; research areas/interests: innovation, marketing, information technology. E-mail: galdona@correo.uaa.mx.

Maria del Carmen Martinez-Serna, Ph.D., Autonomous University of Aguascalientes; research areas/interests: innovation, marketing, and market orientation. E-mail: mcmartin@correo.uaa.mx.

firms a more precise knowledge about the importance of the implementation of CSR (both inside the organization and among the stakeholders), in a way that allows firms to increase their participation in the market and obtain a better financial results (Williamson et al., 2006; Cornelissen, 2008). Therefore, concepts such as stakeholder's management, reputation management, supply chain management and competitiveness are relatively essential when discussing CSR (Nielsen & Thomsen, 2009). Both, large enterprises and SMEs will have to take into consideration these concepts when increasing their activities by use of the CSR (Sarbutts, 2003; Perrini & Tencati, 2006; Vaaland & Heide, 2007; Sweeney, 2007; Gugler & Shi, 2008; Nielsen & Thomsen, 2009).

On the other hand, there are other ways to define CSR in the literature. Nevertheless, there is a general agreement that any firm must give a certain value to society that is beyond its economic function (Bowen, 1953). As a consequence, enterprises that carry out actions in favor of their social atmosphere and have a positive behavior are socially responsible; they are an important source of sustainable and competitive advantages (Porter & Kramer, 2002). Similarly, Aguilera et al. (2007) considers that the CSR is made of a series of organizational responses in a legal, technical and economic aspect that affect directly the creation of social benefits, whereas Carroll (1991) and Carroll and Buchholtz (2002) consider that the CSR is a group of legal, ethical, economic and philanthropic contributions that somehow have an impact in the community.

Thus, the main contribution of this empirical paper is the analysis of the existing relationship between CSR and competitiveness in SMEs in an emerging country, as it is the case of Mexico. A second contribution is the methodology that has been used in this research paper since it will apply a structural equations modeling of second order to analyze the proposed theoretical model as a whole, which will allow a deeper examination of the relationships between this selected variables.

2. Literature Review

One of the most important factors that have contributed to the ambiguity of the concept of CSR is the lack of general consensus among the researchers about its meaning (Carroll, 1979; Panapanaan et al., 2003). Even when the term has been greatly analyzed, discussed and is now part of the current business language, it still causes controversy and debate when attempting to define and measure it (Roberts, 2003; Hopkins, 2003). It has been considered a concept that is ambiguous (Fischer, 2004), subjective (Frederick, 1986), uncertain (McWilliams, 2001), amorphous (Margolis & Walsh, 2001), intangible (Cramer et al., 2004), complex (McGuire, 1963) and with an arguable legitimacy (Lantos, 2001).

The beliefs and attitudes about the nature of the CSR are changing constantly in the literature (Hill et al., 2003), especially in recent definitions that describe it through the theory of the stakeholders (Vos, 2003; Jones, 2005), because such theory has been accepted by the researchers as a more practical and comprehensible abstract idea of the CSR (Hopkins, 2003; Vos, 2003). Likewise, different researches and academics suggest that, with the influence of a definition accepted by most of the researchers of this area, the easiest way to understand and apply the CSR in large enterprises and SMEs is by means of the relationships between the enterprises and their stakeholders (Sweeney, 2007).

By contrast, this theory proposes that each organization has an impact in society and the atmosphere in which it is present. This happens, on one hand, through its different operations, products and services given to society and, on the other hand, through constant interaction with its stakeholders, which makes the CSR important in every firm (Roche, 2002; Hopkins, 2003; Williams, 2005). However, literature has emphasized the analysis and

discussion of the CSR in large enterprises instead of paying attention to the CSR in SMEs (Vyakarnam et al., 1997; Spence et al., 2000; Schaper & Savery, 2004; Perrini et al., 2006). For this reason, special attention has been given to the research of the CSR in SMEs since 1990 from researches, academics and professionals of the marketing field (Hornsby & Kuratko, 1994; Spence et al., 2003).

On one hand, SMEs carry out their social contribution by creating a high number of employments in the communities in which they settle. They can improve their impact by giving the right conditions for the integral development of their employees and contribute to the creation of an organizational culture that respects values and social interests. Thus, the biggest motivation to implement CSR actions in SMEs comes from the personal assuredness of the owners and CEO and less from a firm's strategy (Spence, 2000; Jenkins, 2004). It is also important the influence of supply chains which develop integration dynamics for group strategies as well as strategies for the enterprise (Friedman, 1970).

On the other hand, the incorporation of CSR in SMEs has positive effects in the competitiveness because they can be more important than the ones obtained by the large firms, since the latter ones are perceived as foreign and impersonal. Nevertheless, the need to increase the competitiveness level asks for the creation of sustainable advantages around an efficient social responsibility (in a wide sense) and to look for a continuous contact with society, to invest in the development of skills, knowledge and improvements in processes, to innovate, to use natural resources wisely, to reduce pollution and to promote the respect for people and the laws (Spence, 2007).

Thus, the literature considers the CSR has positive effects in SMEs competitiveness level, it must be integrated in the value chain and consider it as a key element in order to articulate the economic profitability as well as the impact in the environment according to the expectations related to its operation. However, as it is a wide concept, the main question can be focused to how SMEs can incorporate the CSR in their daily routine. To do this, the organizations' planning must include actions to improve their external and internal image, invest in "clean" technology, establish an efficient communication with the different social actors, optimize culture and company values, match the identity of human resources with the interests of the firm, improve the working environment, and contribute economically to charity campaigns, among others (Muñoz, 2010).

Within this context, there are different attempts to classify and measure the CSR in SMEs. For example, the National Corporate Responsibility Index (Muñoz, 2010) establishes three dimensions. *Internal Dimension* includes practices of ethical management and human development. *External Dimension* refers to comply with the legislation, the contribution to social goals and the interest of the client. *Environmental Management Dimension* includes the respect to the environmental legislation, the development and use of non-pollutant technology and the rational use of resources.

Another widely accepted classification is the one provided by the *Green Paper* from the European Union (2001) that establishes two dimensions. *Internal Dimension* includes the management of human resources, the safety and health of employees, change adaptation, management of environmental impact and care of the natural resources. *External Dimension* includes the support to local communities, associates, suppliers and customers where the firm is established, the respect of human rights and the global environment. This classification is very similar to the one proposed by the International Labor Organization which also establishes two dimensions. The *internal dimension* refers to the responses and actions of the firm towards its employees, and the *external dimension* that implies the fulfillment of social responsibility with the other participants (Porro, 2008).

Finally, the most popular and accepted classification provided the scientific community proposes the one by Elkington (1997), who establishes three dimensions. *Social Dimension* includes the relationships with the

stakeholders and the ethical behavior in businesses. *Environmental Dimension* comprises the impact of the company's activities in the environment in terms of responsible use of the natural resources. *Economic Dimension* entails the economic expectations of the suppliers and a responsible trade.

Thus, to be socially responsible implies for SMEs more than just fully complying their legal obligations; they also must make an effort and direct more economic resources to invest in human resources, their environments and the relationships with the spokesmen (Correa et al., 2004; Lockett et al., 2007; Correa, 2007). Similarly, it is important to consider that the CSR can become a constant if SMEs remember the interests of all the people involved in the actions of the firm, something that can indicate that responsible trade is a possibility to get new consumers as well as a challenge to access to new markets (Alvarado & Schlesinger, 2008).

Conversely, in order to know the firm competitiveness level it is necessary to know and analyze factors such as the financial performance, costs reduction and the technological adoption (Buckey et al., 1988; Cho et al., 2008) so it is possible to understand its sales capacity, financial return and capacity of reinvestment. Finally, the most tangible benefit that can be achieved by the firms, especially SMEs, is the competitiveness level when implementing the CSR as part of their day-to-day activities (Porter & Kramer, 2002). Thus, the absence of CSR practices in company activities directly affects the marginal profit and the development of the business since there is a direct correlation between the CSR and the enterprises competitiveness level (Zadek, 2006; Murillo & Lozano, 2006; Gugler & Shi, 2008; Nielsen & Thomsen, 2009).

H1: Higher CSR level, higher competitiveness level

3. Methodology

An empirical research in SMEs was carried out in order to validate the established hypotheses in this paper. In order to obtain the reference framework, the procedure consisted in obtaining the directory of the firms that had from 5 to 250 employees, and using the data offered by the Mexican Information Business System for Aguascalientes (Mexico), which had in June 30 2009, 1,342 registered SMEs. Similarly, the survey was designed so it could be answered by the managers. It was administered in the format of personal interview to each one of the 400 firms selected based on a random sample with a maximum error of $\pm 4.5\%$ and a level of reliability of 95%, which represents a little above 30% of the total population in the investigation. Similarly, 397 replies were obtained which are 99% of the responses and an error of 4.5%.

Three dimensions were taken into consideration in order to measure the CSR scale: *social dimension*, which was measured in a scale of 15 items; *environmental dimension*, which was measured in a scale of 7 items; and *economic dimension*, which was measured in a scale of 9 items, adapted from the European Union (2001); Bloom and Gundlach (2001); Bigné et al. (2005); and Alvarado and Schlesinger (2008). Similarly, three factors were taken into consideration in order to measure the scale of competitiveness: *financial performance* (made of 6 items), *costs reduction* (made of 6 items) and *the use of technology* (made of 6 items), adapted from Buckley et al. (1988) and Cho et al. (2008). All the items of the six dimensions are on a 5 point Likert scale ranging from 1 = strongly disagree to 5 = strongly agree as limits.

On the other hand, in order to evaluate the reliability and validity of the measurement scales, using the maximum likelihood method with the EQS 6.1 software (Bentler, 2005; Brown, 2006; Byrne, 2006), carried out a Confirmatory Factorial Analysis (CFA). Similarly, the reliability of the proposed measurement scales is evaluated from Cronbach's alpha coefficient and the Composite Reliability Index (CRI) (Bagozzi & Yi, 1988). All the values from the scale fulfilled the recommended level of 0.7 for Cronbach's alpha as well as the CRI, which provides an

The Relationship between Corporate Social Responsibility and Competitiveness in Mexican SMEs

evidence of the reliability that justifies the internal reliability of the scales (Nunally & Bernstein, 1994; Hair *et al.*, 1995). Table 1 shows that all the values of Cronbach's alpha and CRI exceeded the recommended level of 0.7 which provides an evidence of reliability (Nunally & Bernstein, 1994; Hair *et al.*, 1995) and suggests that the model offers a good FIT ($S-BX^2 = 938.059$; $df = 448$; $p = 0.000$; $NFI = 0.895$; $NNFI = 0.909$; $CFI = 0.918$; $RMSEA = 0.053$). All the items of the related factors are significant ($p < 0.01$), the size of all the factorial loadings are superior to 0.6 (Bagozzi & Yi, 1988) and the Average Variance Extracted (AVE) of each pair of constructs is superior to the 0.50 recommended by Fornell and Larcker (1981).

Table 1 Internal Consistence and Convergent Validity Evidence of the Theoretical Model

Variable	Indicator	Factor loadings	Robust t-value	Loading average	Cronbach's alpha	CRI	AVE
Social Dimension	SOD10	0.673***	1.000 ^a	0.771	0.884	0.899	0.600
	SOD11	0.695***	9.109				
	SOD12	0.766***	9.905				
	SOD13	0.813***	8.828				
	SOD14	0.882***	11.585				
	SOD15	0.799***	8.620				
Environmental Dimension	END3	0.703***	1.000 ^a	0.786	0.886	0.891	0.621
	END4	0.752***	10.188				
	END5	0.819***	11.067				
	END6	0.860***	9.311				
	END7	0.797***	11.572				
Economic Dimension	ECD6	0.658***	1.000 ^a	0.730	0.815	0.822	0.539
	ECD7	0.649***	6.897				
	ECD8	0.785***	10.889				
	ECD9	0.828***	8.836				
Financial Performance	FIP1	0.873***	1.000 ^a	0.853	0.922	0.913	0.637
	FIP2	0.915***	32.326				
	FIP3	0.921***	26.402				
	FIP4	0.848***	21.816				
	FIP6	0.710***	17.491				
Costs Reduction	PRC1	0.811***	1.000 ^a	0.797	0.912	0.913	0.637
	PRC2	0.804***	20.232				
	PRC3	0.802***	19.425				
	PRC4	0.870***	20.062				
	PRC5	0.776***	15.631				
	PRC6	0.719***	14.778				
Use of Technology	TEU1	0.806***	1.000 ^a	0.830	0.930	0.930	0.689
	TUS2	0.812***	20.036				
	TUS3	0.884***	25.376				
	TUS4	0.855***	24.081				
	TUS5	0.822***	20.713				
	TUS6	0.799***	16.985				

Note: $S-BX^2$ ($df = 448$) = 838.059; ($p < 0.000$); $NFI = 0.895$; $NNFI = 0.909$; $CFI = 0.918$; $RMSEA = 0.053$;

^a = Value parameters in the identification process; *** = $p < 0.01$

Table 2 shows the discriminant validity through two tests. First, with a reliability interval of 95%, none of the individual elements of the factors contain the 1.0 value (Anderson & Gerbing, 1988). Second, the extracted variance between each pair of constructs of the model is superior to their corresponding AVE (Fornell & Larcker, 1981). Therefore, it can be concluded that this research shows sufficient evidence of reliability as well as convergent and discriminant validity.

Table 2 Discriminant Validity Measuring of the Theoretical Model

Variable	1	2	3	4	5	6
1. Social Dimension	0.600	0.041	0.082	0.062	0.054	0.048
2. Environmental Dimension	0.142 - 0.262	0.621	0.088	0.051	0.061	0.054
3. Economic Dimension	0.229 - 0.345	0.244 - 0.384	0.539	0.044	0.051	0.050
4. Financial Performance	0.198 - 0.298	0.169 - 0.281	0.151 - 0.267	0.734	0.147	0.080
5. Costs Reduction	0.183 - 0.283	0.189 - 0.305	0.164 - 0.288	0.300 - 0.468	0.637	0.040
6. Use of Technology	0.157 - 0.281	0.165 - 0.301	0.147 - 0.299	0.199 - 0.367	0.116 - 0.284	0.689

Note: Diagonal represents the average variance extracted, while above the diagonal the shared variance (squared correlations) are represented. Below under the diagonal the 95% confidence interval for the estimated factors correlations is provided.

4. Results

In order to prove the hypotheses presented in the theoretical model, a structural equations modeling with software EQS 6.1 by means of CFA of second order was applied (Bentler, 2005; Byrne, 2006; Brown, 2006). In it, the nomological validity of the theoretical model was examined through the Chi-square test, which compared the results obtained between the theoretical model and the measurement model. Such results indicate that the differences between both models are not significant which can offer an explanation of the relationships observed among the latent constructs (Anderson & Gerbing, 1988; Hatcher, 1994). Table 3 shows these results in a more detailed way.

Table 3 Structural Equation Modeling Results from the Theoretical Model

Hypothesis	Path	Standardized path coefficients	Robust t-Value
H₁ : Higher level of CSR, higher level of competitiveness.	CSR → Competitiveness	0.580***	31.038

Note: $S-BX^2 = 821.3085$; $df = 440$; $p = 0.000$; $NFI = 0.898$; $NNFI = 0.909$; $CFI = 0.920$; $RMSEA = 0.053$; *** = $P < 0.01$

Table 3 shows the results obtained from the implementation of the second order structural equations modeling and regarding to the hypothesis **H₁**, the obtained results ($\beta = 0.580$, $p < 0.01$), indicate that the CSR have significant positive effects in the SMEs competitiveness level. In short, the results show that the three dimensions that make up the CSR and the three dimensions that determine the competitiveness have positive effects in SMEs from, which make us, believe that the implementation of the CSR allows SMEs to improve their competitiveness level.

5. Conclusion and Discussion

The results obtained in this paper show that the managers or owners of SMEs in Aguascalientes (Mexico) normally consider the social, environmental and economic aspects when designing their business strategies. In other words, a considerable amount of firms do implement the CSR in their daily activities. These results are very

similar to the ones obtained in the investigations from Treviño (1986), Quinn (1997), Spence and Rutherford (2003), Spence et al. (2003), and Murillo and Lozano (2006). Even when most of the managers of enterprises consider themselves as important businessmen committed to society, they do not normally apply the CSR as such in their firms. They rather implement business strategies in order to get optimal positioning of their products with the consumers as well as to achieve a higher level of competitiveness in the market. Nevertheless, there is also an important number of managers who are committed with the society and the preservation of the environment who really implement the CSR in SMEs, just as it is shown in the obtained results.

As a result, we can conclude that the enterprises that are socially responsible have a better financial performance than those that do not do so. Similarly, SMEs that implement the CSR in their daily activities obtain a higher social recognition and approval. Such approval can label the enterprises as the ones that can be trusted, recommended and easy to work with since a part of their economic benefits are given to the environmental and social improvement of the society where they develop their activities. Thus, the firms that apply the CSR can get a closer relationship with society because such society will perceive a level of comfort by knowing that the company will provide growth and sustainability.

Firstly, SMEs that apply the CSR can create business strategies that allow them to be more competitive and innovative in their market place, which is generally a local or regional market, since they could improve the working conditions, health and safety of their employees. Secondly, they can improve the local infrastructure and make donations (in cash or in kind) to their community. Thirdly, they can produce environmentally friendly products by developing production processes that reduce waste products and pollution. By doing this, SMEs from Aguascalientes (Mexico) could create a higher economic potential in order to adopt the CSR in their daily activities because this kind of enterprises needs the production of economic resources to afford the implementation of their business strategies. Similarly, these enterprises require the encouragement of strong, close relationships with the locals in order to survive in a globalized and highly competitive market.

Regarding the competitiveness level shown nowadays in SMEs in Aguascalientes (Mexico), it is important to notice that the results obtained indicate that the CSR has a significant, positive effect in them, which has enabled these organizations to be competitive in the market place. Similarly, the last researches show that there have been excellent sales levels in SMEs in the last three years, which leads us to believe that reinvestment has been positively used in social causes for workers and other actions that significantly reduce environmental pollution in the community. SMEs need to apply the CSR constantly in all their internal and external activities as a way to keep their level of competitiveness in their market place. Consequently, enterprises have mainly had excellent levels of competitiveness because they have been able to incorporate the CSR as a business strategy, which sets them apart from their competitors. Similarly, SMEs show a better coordination and knowledge in the operative activities with their stakeholders in order to improve their levels of productivity since the organizations also require nowadays ethical and reliable suppliers.

Finally, it is important to mention that any enterprise can improve its competitive level if it can, firstly, adapt its daily activities (both internal and external) to the CSR of the organization. Secondly, to adopt or improve the management controls in the production process in a way that it can offer to customers the certainty that its products do not affect the environment. Thirdly, to have stakeholders that constantly improves their operative activities by adopting or incorporating new technologies, by giving the enterprises raw materials and services, which are environmentally friendly. This can be done if the client-supplier relationship is ethical, reliable, close and with an excellent communication. Therefore, it is important that enterprises have a healthy, reliable financial

activity, always ready for unexpected events because the market conditions are always changing.

Conversely, the participation of government authorities is essential to design public policies and programs that promote the incorporation of social responsibility and sustainability in SMEs' regular activities because this would create a social atmosphere in which managers would value the responsibility they have towards society. It would include employees in the economic benefits produced by the organization as a way to have better life standards and generate social and environmental changes required in the new corporate context. Even when there are many empirical investigations, it would be important to understand the differences and similarities when implementing the CSR in enterprises with different sizes (that is large firms vs. SMEs) or by sectors of economic activities in future researches. Similarly, it would be interesting to find answers to the following questions: what would happen with the SMEs competitive level if they emphasized the social aspects but not the environmental ones? Or, what would happen with the competitive level if SMEs only emphasized the economical aspects without the social and environmental ones? These questions may be solved in future researches.

References:

- Aguilera R., Rupp D., Williams C. and Ganapathi J. (2007). "Putting the S back to corporate social responsibility: A multilevel theory of social change organizations", *Academy of Management Review*, Vol. 32, No. 3, pp. 836-863.
- Alvarado H. and Schlesinger M. (2008). "Dimensionalidad de la responsabilidad social empresarial percibida y sus efectos sobre la imagen y la reputación: una aproximación desde el modelo de Carroll", *Estudios Gerenciales*, Vol. 24, No. 108, pp. 37-59.
- Anderson J. and Gerbing D. (1988). "Structural equation modeling in practice: A review and recommended two-step approach", *Psychological Bulletin*, Vol. 13, pp. 411-423.
- Bagozzi R. and Yi Y. (1988). "On the evaluation of structural equation models", *Journal of the Academy of Marketing Science*, Vol. 16, No. 1, pp. 74-94.
- Bentler P. M. (2005). *EQS 6 Structural Equations Program Manual*, Encino, CA: Multivariate Software.
- Bigné E., Andreu L. and Sánchez G. I. (2005). "Investigación en marketing turístico: un análisis de las publicaciones en el período 1995-2003", *XV Jornadas Hispano-Lusas de Gestión Científica*, Sevilla.
- Bloom P. and Gundlach G. (2001). *Handbook of Marketing and Society*, Thousand Oaks, CA: Sage Publications.
- Bowen H. (1953). *Social Responsibility of the Businessman*, New York, NY: Harper & Row.
- Brown T. (2006). *Confirmatory Factor Analysis for Applied Research*, New York, NY: The Guilford Press.
- Buckley J. P., Pass L. C. and Prescott K. (1988). "Measures of international competitiveness: A critical survey", *Journal of Marketing Management*, Vol. 4, No. 2, pp. 175-200.
- Byrne B. (2006). *Structural Equation Modeling with EQS, Basic Concepts, Applications, and Programming* (2nd ed.), London: LEA Publishers.
- Carroll A. (1979). "A three dimensional conceptual model of corporate governance", *Academy of Management Review*, Vol. 4, No. 4, pp. 497-505.
- Carroll A. B. (1991). "The pyramid of corporate social responsibility: Toward the moral management of organizational stakeholders", *Business Horizons*, Vol. 34, pp. 39-48.
- Carroll A. B. and Buchholtz A. K. (2002). *Business & Society: Ethics and Stakeholder Management* (5th ed.), Manson, OH: Thomson-South Western.
- Cho Y. J., Leem C. S. and Shin K. T. (2008). "The relationships among manufacturing innovation, competitiveness, and business performance in the manufacturing industries of Korea", *International Advanced Manufacturing Technology*, Vol. 38, No. 1, pp. 840-850.
- Cornelissen J. (2008). *Corporate Communications: Theory and Practice*, London: Sage.
- Correa J. (2007). "Evolución histórica de los conceptos de responsabilidad social empresarial y balance social", *Semestre Económico*, Vol. 10, No. 20, pp. 87-102.
- Correa M., Flynn S. and Amit A. (2004). "Responsabilidad social corporativa en América Latina: Una visión empresarial", *Visión de Desarrollo Sostenible y Asentamientos Humanos*, Vol. 85, pp. 1-79.
- Cramer J., Jonker J. and Heijden A. (2004). "Making sense of corporate social responsibility", *Journal of Business Ethics*, Vol. 55, pp. 215-222.

- Crawford D. and Scaletta T. (2005). "The balanced scorecard and corporate social responsibility: aligning values and profits", *CMA Management*, Vol. 79, No. 6, pp. 20-27.
- Elkington J. (1997). *Cannibals with Forks: The Triple Bottom Line of 21st Century Business*, Oxford, UK: Capstone Publishing Limited.
- European Union (2001). "Libro verde, promuovere un quadro europeo per la responsabilità sociale delle imprese", green paper, available online at: <http://www.europea.eu.int>.
- Fischer J. (2004). "Social responsibility and ethics: clarifying the concepts", *Journal of Business Ethics*, Vol. 52, No. 4, pp. 391-400.
- Fornell C. and Larcker D. (1981). "Evaluating structural equation models with unobservable variables and measurement error", *Journal of Marketing Research*, Vol. 1, No. 18, pp. 39-50.
- Frederick W. (1986). "Toward CSR3: why ethical analysis is indispensable and unavoidable in corporate affairs", *California Management Review*, Vol. 28, No. 2, pp. 126-141.
- Freeman R. E. (1984). *Strategic Management: A Stakeholder Approach*, Boston, MA: Pitman.
- Friedman M. (1970). "The social responsibility of business is to increase its profits", *The New York Magazine*, Vol. 13, Nos. 32/33, pp. 122-126.
- Gugler P. and Shi J. Y. J. (2008). "Corporate social responsibility for developing country multinational corporations: Lost war in pertaining global competitiveness", *Journal of Business Ethics*, Vol. 87, pp. 3-24.
- Hair J. F., Anderson R. E., Tatham R. L. and Black W. C. (1995). *Multivariate Data Analysis with Readings*, New York, NY: Prentice-Hall.
- Hatcher L. (1994). *A Step-by-step Approach to Using the SAS System for Factor Analysis and Structural Equation Modeling*, Cary, NC: SAS Institute Inc.
- Hill R., Stephens D. and Smith I. (2003). "Corporate social responsibility: An examination of individual firm behavior", *Business and Society Review*, Vol. 108, No. 3, pp. 339-364.
- Hopkins M. (2003). *The Planetary Bargain, Corporate Social Responsibility Matters*, London: Earthscan Publications Ltd.
- Hornsby J. and Kuratko D. (1994). "The ethical perceptions of small business owners: A factor analytic study", *Journal of Small Business Management*, Vol. 32, No. 4, pp. 9-16.
- Jones M. (2005). "The traditional corporation, corporate social responsibility and the outsourcing debate", *The Journal of American Academy*, Vol. 2, pp. 91-97.
- Knox S., Maklan D. and French P. (2005). "Corporate social responsibility: Exploring stakeholder relationship and programme reporting across leading FTSE companies", *Journal of Business Ethics*, Vol. 61, No. 1, pp. 7-8.
- Lantos G. (2001). "The boundaries of strategic corporate social responsibility", *Journal of Consumer Marketing*, Vol. 18, No. 1, pp. 595-632.
- Lockett A., Moon J. and Visser W. (2007). "Corporate social responsibility in management research: Focus, nature, salience and sources of influence", *Journal of Management Studies*, Vol. 43, No. 1, pp. 115-136.
- Luetkenhorst W. (2004). "Corporate social responsibility and the development agenda: The case for actively involving small and medium-sized enterprises", *Intereconomics*, Vol. 39, No. 3, pp. 157-166.
- Margolis J. and Walsh J. (2001). *People and Profits? The Search a Link between a Company's Social and Financial Performance*, Upper Saddle River, NJ: Lawrence Erlbaum Associates Publishers.
- McGuire J. (1963). *Business and Society*, New York, NY: McGraw-Hill.
- McWilliams A. (2001). "Corporate social responsibility: A theory of the firm perspective", *Academy of Management Review*, Vol. 26, No. 1, pp. 117-128.
- Muñoz L. A. (2010). "Gestión de la responsabilidad social corporativa en la Pyme como ventaja competitiva y factor diferenciador", *Pequeñas y Medianas Empresas*, Vol. 2, pp. 11-15.
- Murillo D. and Lozano J. M. (2006). "SMEs and CSR: An approach to CSR in their own words", *Journal of Business Ethics*, Vol. 67, No. 3, pp. 227-240.
- Nielsen A. E. and Thomsen C. (2009). "CRS communication in small and medium-sized enterprises: A study of the attitudes and beliefs of middle managers", *Corporate Communications: An International Journal*, Vol. 14, No. 2, pp. 176-189.
- Nunnally J. C. and Bernstein I. H. (1994). *Psychometric Theory* (3rd ed.), New York: McGraw-Hill.
- Ogrizek M. (2002). "The effect of corporate social responsibility on the branding of financial services", *Journal of Marketing*, Vol. 6, No. 3, pp. 215-228.
- Panapanaan V., Linnanen L., Karvonen M. and Phan V. (2003). "Roadmapping corporate social responsibility in finish companies", *Journal of Business Ethics*, Vol. 44, Nos. 2/3, pp. 133-148.

- Perrini F. and Tencati A. (2006). "Sustainability and stakeholder management: The need for new corporate performance evaluation and reporting systems", *Business Strategy and the Environment*, Vol. 15, pp. 296-308.
- Perrini F., Russo A. and Tencati A. (2006). "SMEs and CSR theory: Evidence and implications from an Italian perspective", *Journal of Business Ethics*, Vol. 67, No. 3, pp. 305-316.
- Porro M. (2008). "Responsabilidad social empresarial en el Perú", *Revista e-Mercatoria*, Vol. 7, No. 1, pp. 11-20.
- Porter M. E. and Kramer M. R. (2002). "The competitive advantage of corporate philanthropy", *Harvard Business Review*, December, pp. 56-68.
- Quinn J. (1997). "Personal ethics and business ethics: The ethical attitudes of owner-managers of small business", *Journal of Business Ethics*, Vol. 16, No. 2, pp. 119-127.
- Roberts S. (2003). "Supply chain specific? Understanding the patchy success of ethical sourcing initiatives", *Journal of Business Ethics*, Vol. 44, Nos. 2/3, pp. 159-170.
- Roche J. (2002). "CSR and SMEs: Chalk and cheese?", *Ethical Corporation*, Vol. 9, pp. 18-19.
- Roman S., Hayibor S. and Agle B. B. (1999). "The relationship between social and financial performance", *Business & Society*, Vol. 38, No. 1, pp. 109-125.
- Sarbutts N. (2003). "Can SMEs do CRS? A practitioner's view of the ways small and medium-sized enterprises are able to manage reputation through corporate social responsibility", *Journal of Communication Management*, Vol. 7, No. 4, pp. 340-347.
- Schaper M. and Savery L. (2004). "Entrepreneurship and philanthropy: The case of small Australian firms", *Journal of Development Entrepreneurship*, Vol. 9, No. 3, pp. 239-250.
- Spence L. (2007). "CSR and small business in European policy context: The five C's of CSR and small business research agenda 2007", *Business and Society Review*, Vol. 112, No. 4, pp. 533-552.
- Spence L. J. (2000). *Practices, Priorities and Ethics In Small Firms*, London: Institute of Business Ethics.
- Spence L., Jeurissen R. and Rutherford R. (2000). "Small business and the environment in the UK and the Netherlands: Toward stakeholder cooperation", *Business Ethics Quarterly*, Vol. 10, No. 4, pp. 945-965.
- Spence L., Schmidpeter R. and Habisch A. (2003). "Assessing social capital: small and medium-sized enterprises in Germany and the UK", *Journal of Business Ethics*, Vol. 47, No. 1, pp. 17-29.
- Spence L. J. and Rutherford R. (2003). "Small business and empirical perspectives in business ethics: Editorial", *Journal of Business Ethics*, Vol. 47, No. 1, pp. 1-5.
- Sweeney L. (2007). "Corporate social responsibility in Ireland: Barriers and opportunities experienced by SMEs when undertaking CSR", *Corporate Governance*, Vol. 7, No. 4, pp. 516-523.
- Treviño L. K. (1986). "Ethical decision making in organizations", *Academy of Management Review*, Vol. 11, No. 3, pp. 601-617.
- Vaaland T. I. and Heide M. (2007). "Can the SME survive the supply chain challenges?", *Supply Change Management*, Vol. 12, pp. 20-31.
- Vos J. (2003). "Corporate social responsibility and the identification of stakeholders", *Corporate Social Responsibility and Environmental Management*, Vol. 10, No. 3, pp. 141-152.
- Vyakarnam S., Bailey A., Myers A. and Burnett D. (1997). "Towards an understanding of ethical behavior in small firms", *Journal of Business Ethics*, Vol. 16, No. 15, pp. 1625-1636.
- Williams A. (2005). "Consumer social responsibility", *Consumer Policy Review*, Vol. 15, No. 2, pp. 34-35.
- Williamson D., Lynch-Wood G. and Ramsey J. (2006). "Drivers of environmental behavior in manufacturing SMEs and the implications for CSR", *Journal of Business Ethics*, Vol. 67, No. 3, pp. 317-330.
- Zadec S. (2006). "Corporate responsibility and competitiveness at the macro level responsible competitiveness: reshaping global markets through responsible business practices", *Corporate Governance*, Vol. 6, No. 4, pp. 334-348.

Finding...ASEAN MRA for Tourism Professionals*

Maria Christina Gaerlan Aquino, Lilibeth Corro Aragon
(Lyceum of the Philippines University, Intramuros, Manila, Philippines)

Abstract: This study aims to determine the awareness level of various stakeholders in the Philippines on the Association of Southeast Asian Nations (ASEAN) Mutual Recognition Arrangement (MRA) for Tourism Professionals. The agreement was signed by the nine member states in 2009, with Thailand signing it on November 2012. Mutual Recognition Arrangements allow two or more parties to mutually recognize or accept some or all aspects of one another's conformity with assessment results. With the 2015 MRA implementation, industry, academe, students and government agencies are still creating awareness opportunities on how it will impact their sector, and the necessary steps needed.

Key words: ASEAN economic community (AEC); mutual recognition arrangement (MRA); ASEAN common competency standards for tourism professionals (ACCSTP); common ASEAN tourism curriculum (CATC)

JEL code: M1

1. Introduction

There is much talk about the ASEAN MRA for Tourism Professionals, however, awareness levels of the various stakeholders has not been studied. It is critical that the various sectors understand implications of the agreement to their business, education, and training as well as how they can better prepare for it when it is fully implemented. With a few months before 2015, there are several activities that are being undertaken by various agencies in each country to prepare for the full implementation.

1.1 Purpose of the Paper

To respond to impending implementation of the ASEAN MRA for Tourism Professionals by 2015, this study will focus on activities that are being undertaken by various agencies to increase the awareness levels and prepare for the implementation in the Philippines and determine if there is sufficient activities and what are the requirements of the various stakeholders to address the impact of the implementation.

2. Literature Review

2.1 ASEAN Community by 2015

ASEAN was established in 1967 through the ASEAN Declaration with five member states that included the

*Selection and peer-review under responsibility of the Organizing Committee of 12th APacCHRIE Conference 2014.

Maria Christina Gaerlan Aquino, Ph.D. Education Curriculum Studies (ongoing), Lyceum of the Philippines University; research areas/interests: tourism and hospitality education. E-mail: mcg_aquino@yahoo.com.

Lilibeth Corro Aragon, Doctor in Business Administration, Lyceum of the Philippines University; research areas/interests: tourism and hospitality education.

Philippines, Malaysia, Thailand, Indonesia and Singapore. Since then, Brunei, Vietnam, Lao, Myanmar and Cambodia have joined the ASEAN. Among the many aims and purposes for the organization, it wants to “*To accelerate the economic growth, social progress and cultural development in the region through joint endeavours in the spirit of equality and partnership in order to strengthen the foundation for a prosperous and peaceful community of Southeast Asian Nations*” (ASEAN website) and promote regional peace among the ASEAN Member States (AMS).

To realize this objective, the ASEAN Vision 2020 was adopted by all the AMS during its 1997 meeting. During the ASEAN Summit in 2003, the AMS leaders resolved that the ASEAN Community will be established. For its 2007 ASEAN Summit, the AMS leaders decided to accelerate the ASEAN Community from 2020 to 2015. The label, ASEAN Community 2015 was formed, and it has three pillars that include the following: ASEAN Political-Security Community, the ASEAN Socio-cultural Community and the ASEAN Economic Community (AEC), with each pillar having their own plans, timetable and lead groups working on the initiatives.

The AEC will establish the region as a “*single market and production base making ASEAN more dynamic and competitive with new mechanisms and measures to strengthen the implementation of its existing economic initiatives; accelerating regional integration in the priority sectors; facilitating movement of business persons, skilled labor and talents; and strengthening the institutional mechanisms of ASEAN.*”

2.2 ASEAN MRAs

To realize the aim on “facilitating movement of business persons and skilled labor and talents” aim, several Mutual Recognition Arrangements (MRA) for different qualifications were signed starting in 2003 and completed in 2008. These MRAs are in the following areas: Accountancy Services, Medical Practitioners, Nursing Services, Electronic and Electrical Equipment Preamble, Dental Practitioners, Engineering Services, and Tourism Professionals. In the Philippines, the first six MRAs will be implemented through the Professional Regulation Commission, the government recognized agency responsible for the administration, implementation and enforcement of regulatory policies on the regulation and licensing of various professions and occupations under its jurisdiction.

2.3 Philippine Lead Agencies in Implementing the ASEAN MRA for Tourism Professionals

The ASEAN MRA for Tourism Professionals was signed by the leaders of the AMS in 2009 and completed in 2012 is handled by a different government agency as there is no license needed to work in the various sectors of the tourism industry. The three lead agencies in the Philippines to implement this MRA, have been identified: The Department of Tourism (DOT), Tourism Industry Board Foundation Inc. (TIBFI), Technical Education and Skills Development Authority (TESDA).

The DOT is the National Tourism Organization (NTO). It is the government mandated agency responsible for the promotion and development of tourism as a major socio-economic activity that will generate employment and economic initiatives that will spread the benefits to both private and public sector. As the designated NTO, it is tasked to do the following: develop, coordinate and implement work programmes/plans to enhance cooperation in tourism; provide a mechanism to promote participation from the private or business sector and non-government organizations; establish working groups to assist in the development and implementation of policies and work programmes and represent the Philippines in the ASEAN Tourism Professional Monitoring Committee (ATPMC).

The TESDA is the designated Tourism Professional Certification Board (TPCB). It is the agency authorized by the government of each ASEAN Member State primarily responsible for the assessment and certification of tourism professionals. As the TPCB, it is tasked to assess qualifications and/or competencies of tourism

professionals as specified in the ASEAN Common Competency Standards for Tourism Professionals (ACCSTP); issue certificates to tourism professionals whose qualifications and/or competencies comply with the ACCSTP; develop, process and maintain a registry of certified tourism professionals and job opportunities and notify the NTPB when foreign tourism professionals are no longer qualified or have violated any technical, professional or ethical standards.

The TIBFI is the designated National Tourism Professional Board (NTPB) and refers to the Board for Tourism Professionals composed of representatives from the public and private sectors including the academia and other relevant tourism stakeholders as identified by the ASEAN NTOs. As the NTPB, it is tasked to create awareness and disseminate information about the ASEAN MRA; promote, update, maintain and monitor the ACCSTP and the Common ASEAN Tourism Curriculum (CATC); facilitate the exchange of information on assessment procedures, criteria, systems, manuals and publications relating to the MRA; report its work progress to the ASEAN NTO; formulate and update necessary mechanism to enable implementation of the MRA and facilitate the exchange of best practices in the tourism sector. TIBFI has various industry and academic professional organizations as members but not limited to the Hotel and Restaurant Association of the Philippines (HRAP), Philippine Travel Agencies Association (PTAA), Philippine Tour Operators Association (PHILTOA), Association of Human Resource Managers in the Hospitality Industry (AHRM), Hotel Sales Managers Association (HSMA), Executive Housekeepers Association of the Philippines (EHAP), Philippine Bartenders' League (PBL); Hotel Restaurant Chefs Association of the Philippines (HRCAP), Philippine Association of Convention, Exhibition Organizers and Suppliers (PACEOS), Council of Hotel and Restaurant Educators of the Philippines (COHREP), Association of Administrators in Hospitality, Hotel and Restaurant Management Educational Institutions (AAHHRMEI) and National Union of Workers in the Hotel and Restaurant and Allied Industries (NUWHRAIN). All the professional organizations are represented by their current president or their designated representatives.

2.4 The Philippine Tourism Industry

The last few years have seen a growth in tourism and hospitality industry, especially in the Southeast Asian region, including the Philippines. For 2013, international the tourism arrivals reached 4.7 million (DOT), and had around 27.9M domestic tourists in 2011. Based on the DOT National Tourism Development Plan for 2011-2016, the target for international tourists is 10 million international tourists and 35.5 million domestic tourists by 2016. There is need for many employees who have the skills sets needed to work in different sectors of the tourism and hospitality industry.

2.5 Philippine Higher Education Landscape

Out of 2,299 higher education institutions, there are 978 HEIs offering HRM and 346 HEIs offering Tourism programs in the Philippines. Using enrollment figures for AY 2011-2012, there are 226,950 students enrolled in HRM programs, making it number 3 of the most popular programs. For AY 2012-2013, there were 247,354 hospitality students and 19,591 Tourism students. The last few years have seen a worldwide phenomenal growth in tourism and hospitality industry. As a result, there is need for many employees who have the skills sets needed to work in different sectors of the tourism and hospitality industry. With these developments, there is an increased popularity among high school graduates to choose tourism and hospitality management (THM) programs in the various higher education institutions (HEIs) making it the 3rd of the top ten programs with biggest enrollment. The opening of job prospects in ASEAN will also boost employment opportunities for Tourism and Hospitality graduates here in the Philippines. The only challenge is to ensure that the competencies of graduates meet the

CATC and competency standards. Students will have to take an assessment with TESDA, and will receive a certification that will allow them to qualify for work in any of the ASEAN member states.

3. Methodology

Through the initiative of DOT, awareness seminars were conducted in various regions. DOT would advise their regional office of the schedule of ASEAN MRA seminars. The regional office would then send out invitations to various stakeholders from industry, academe, government offices. The awareness seminars are conducted by representatives from DOT, TESDA and TIBFI/The seminar is a four hour seminar, usually done in the afternoon from 1:30 to 5:30 in the afternoon. It contains topics on the Agreements that led to the ASEAN MRA for Tourism Professionals, presented by the DOT representative; the Philippine Qualifications Framework (PQF) presented by TESDA; and the TIBFI background and the ASEAN Toolbox presented by TIBFI representatives. A pre & post-test is conducted among the participants, an open forum, and handouts are given to the participants.

The pre & post-test has ten multiple choice questions, with three questions with multiple answers, and the highest possible score is 16. Refer to Appendix A for Pre & Post Test Sample. To date, sixteen seminars have been conducted.

Table 1 DOT Initiated ASEAN MRA Awareness Seminars

Location	Date	Academe	Hotels & Resorts	Tour operators	Tour Guides	TREs	LGUs	others	DOT	TESDA	CHED	labor	TOTAL	%
Cebu City	7/5/13	7	29	29	7	4	5		3				84	8.13%
Iloilo City	7/11/13	41	4	8	20	7	12			8			100	9.68%
Puerto Princesa	7/22/13	21	17	10	7		7	7					69	6.68%
Bacolod City	8/30/13	44	-	6	-	4	21			2			77	7.45%
Baguio City	9/11/13	20	26	11	8	37	13		19				134	12.97%
Legazpi City	9/18/13	31	14	10	3	4	-			8			70	6.78%
Tagbilaran, Bohol	10/4/13	7	12	20	8	40	2			3			92	8.91%
Cagayan De Oro	10/9/13	38	33	7	1	10	12			2			103	9.97%
Angeles City	10/25/13	46	11	16		7	11			7	5		103	9.97%
Tacloban	11/5/13	no breakdown available due to lost records from Typhoon Yolanda											64	6.20%
Laoag	11/15/13	16	12	5	6		18		8	2			67	6.49%
NCR	11/28/13	23	19	4	2	6		5	1	3	3	4	70	6.78%
Zamboanga	3/3/14													
Surigao	3/7/14													
General Santos	3/14/14													
Tuguegarao	3/31/14													
Dipolog	5/2/14													
Sub-total to date	16	294	177	126	62	119	101	12	31	35	8	4	1033	
% share		28.46%	17.13%	12.20%	6.00%	11.52%	9.78%	1.16%	3.00%	3.39%	0.77%	0.39%		

Aside from DOT initiated seminars, special invitations to the DOT MRA Awareness team members are made from various organizations. Similar topics are presented. The organizer may opt to conduct the pre & post test activity. To date, there have been sixteen seminars that were conducted in this category, in various regions of the

Finding....ASEAN MRA for Tourism Professionals

Philippines. There are still other seminars that are being planned, especially in regions where the provinces are far from the seminar venue.

Table 2 ASEAN MRA Seminars Initiated by Other Organizations with DOT/TESDA/TIBFI Speakers

organizer	location	date	no. of pax	%
AAHRMEI National Convention	Crowne Regency, Boracay	12/1/12	266	10.46%
COHREP National Convention	Waterfront Davao	2/1/13	200	7.86%
PACEOS	Resorts World		30	1.18%
AHRM	Century Park Hotel		30	1.18%
PHILTOA	SMX	9/3/13	300	11.80%
Capiz Provincial Tourism And Cultural Affairs Office	Capiz	9/25/13	80	3.15%
COHREP CAR 1st Regional Conference	Baguio	9/27/13	125	4.92%
COHREP GMM	National University	10/11/13	17	4.60%
2nd TVET Congress	SMX	10/29/13	1,286	50.57%
COHREP XI 2nd Regional Conference	Marco Polo Hotel, Davao	12/10/13	70	2.75%
COHREP III ASEAN MRA Seminar	University of the Assumption	2/14/14	39	1.53%
UST Event Class	Camp Aguinaldo	2/28/14	300	11.80%
PACSB V	Hotel Dominique	2/28/14	150	5.90%
LPU Manila	LPU Mini Theater		80	3.15%
LPU Batangas	JPL Hall of Freedom	2/27/14	300	11.80%
UFTE	No data yet	3/29	No data yet	
Sub-total to date	16	total	3,373	

To date, there were 4,406 participants who have attended the various seminars, with the non-DOT initiated seminars getting around 76.55% of the participants. Refer to Figure 1 for breakdown of seminar participants.

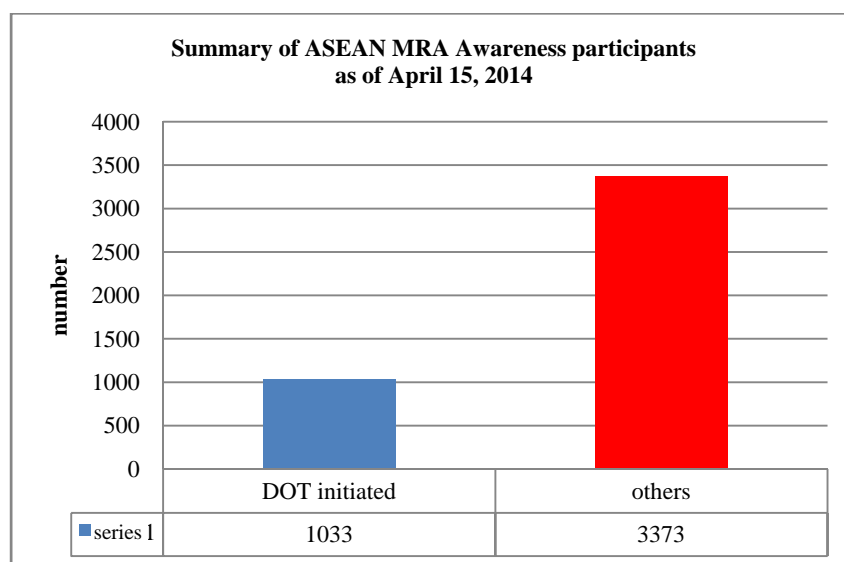


Figure 1 Summary of ASEAN MRA Awareness Participants

TIBFI has a website (<http://www.tourismindustryboard.org/>) where relevant information is uploaded for use by interested stakeholders. As of April 17, it was visited 6,174 times. A survey was conducted among members of TIBFI re: awareness from December 4, 2013 to January 10, 2014 using the google doc based survey. Multiple choice questions and answers were provided, and open choices that allowed for other answers to be given by the respondent.

A five day training was conducted by DOT and TIBFI for the National Master Trainer and Assessor Training Workshop at the TESDA Women's Center in Taguig last March 17 to 21, 2014. Facilitators to this workshop were four of the seven participants to the ASEAN Master Trainer and Assessors Training Program in Bali, Indonesia. Participants to the workshop were nominated by the TESDA Regional Offices. To qualify, participants must be a holder of TESDA National Certificates, and completed the Assessor's Methodology(AM), Trainer's Methodology(TM) and National Trainer's Certificate (NTC); and should have at least three to five years of industry work experience in Housekeeping or in relevant areas. There were thirty-seven participants who qualified in this training. The successful participant will have to conduct a similar cascade training in their region.

4. Findings and Discussion

4.1 Pre-test and Post Test Results

During the DOT initiated ASEAN MRA Awareness seminars, participants would not be given hand-outs initially. They would be given a diagnostic exercise before the seminar proper. Questions were asked on details of the ASEAN MRA for Tourism Professionals including member states of the ASEAN. These seminars would have around 50 to 100 participants. Partial results are shown in Table 3.

Table 3 Results of Pre & Post Test

		No. of Participants			Average			median			mode			highest			Lowest		
Province	Date	PRE	POST		PRE	POST	INCREASE	PRE	POST	Change	PRE	POST	INCREASE	PRE	POST	INCREASE	PRE	POST	INCREASE
Legazpi	9/18/13	59	63		34.64%	44.05%	12.69%	5	7	+2	5	7	2	11	11	0	1	3	2
Cebu	07/05/13	70	65		38.57%	48.08%	9.51%	6	8	+2	6	8	2	11	11	0	2	5	3
Bacolod	8/30/13	56	64		38.28%	52.54%	14.26%	6	9	+3	6	9	3	10	12	2	2	3	1
Palawan	7/22/13	56	58		35.94%	58.84%	22.90%	6	10	+4	5	11	6	10	12	2	2	5	3
Ilo-ilo	7/11/13	77	73		41.80%	53.34%	11.54%	6	8	+2	6	8	2	11	13	2	3	5	2
Pampanga	10/25/13	95	94		36.32%	54.52%	18.21%	6	9	+3	5	9	4	11	12	1	2	5	3
average		68.83	69.5		0.3759	0.5189	0.1485	5.833	8.5	2.667	5.5	8.667	1.462	10.67	11.83	0.538	2	4.333	1.077

During the seminar, there were early and late participants, and some who would leave early due to other commitments. As a result, there would be lower participants in the pre-test than in the post test, or the reverse could happen also, where there were more post-test takers than the pre-test taker. To avoid embarrassment among the participants, organizers request participants to write an "alias" in their paper. Participants with the highest points in each location, both for pre-test and post-test are given special prizes from DOT. A group assessment (participants from one table) is also conducted at the end of the seminar. Winning group receives a DVD containing the soft copies of all 145 competencies. This is a much sought prize among the participants. The biggest number of participants was in Pampanga, 95 participants, and the lowest number of participants was in Palawan with 56 participants.

The post-test average scores show that there was an increase in the awareness levels of the participants by 14.8%. The highest increase in awareness was in Palawan at 22.9%, and the lowest increase was in Iloilo at 11.5%. The median score for the pre-test was 5.833 out of high score of 16 points and the post test results show an increase to 8.5. The highest pre-test result was 11 and four of the six areas got this score. The two areas that got the lower pre-test are in Bacolod and Palawan. The highest post test was 13 and was received by a participant from Iloilo. The lowest pre-test score was 1 and this was from a Legaspi participant, and the lowest post-test score

was 3 from Legaspi and Bacolod. To date, only one participant has received a perfect pre-test and this was from an LPU Manila participant.

The DOT initiated seminars indicate that participants increased their awareness levels after attending the seminar.

4.2 TIBFI Survey

There were 243 responses received from the various sectors. Respondents could belong concurrently with various sectors, i.e., academe but also part of an industry organization, or academe and government. Respondents were academe (44%), government (25%), industry (19%), students (9%) and labor (3%). There were respondents from all 16 regions except for CARAGA, and distribution had National Capital Region (53%), CALABARZON (19%), and then Central Luzon (10%).

Most of the respondents (64%) have not attended any awareness seminar. Of those who attended, they cited COHREP at 27%, as the organizer of such a seminar, followed by the DOT/TIBFI at 22%. Most of the respondents, around 75%, think that they will be affected by the ASEAN MRA.

Most respondents indicated that the impact of this development will be in curriculum content, job opportunities, and improved salary structure. For curriculum development, there is need for schools to be aware of the ASEAN Curriculum and competency standards as this would be the new minimum. This would mean retraining of faculty, development of new instructional materials, and assessment and certification of graduates would be highly recommended to increase their employability percentage. There would also be more local employees who will be seeking job opportunities outside of the country, as well as influx of foreign employees who will compete with local employees for jobs in various sectors. A positive development would be the review of salary structure to be comparable with the ASEAN member states, so that employees will not leave their present organization.

Many of the respondents are not yet doing any preparation to address the impact of this development. They do not know where to start, and are not yet aware of the significance of this development. For those that are aware, some have started training and development programs and curriculum review are topmost in the agenda of most stakeholders.

Most of the respondents, 83% need assistance in preparing for the impacts of the ASEAN MRA for Tourism Professionals full implementation. They cite curriculum development, and training of faculty and employees on the new standards as their priority activities.

The results of the survey show that there is need to conduct more activities that increase awareness levels especially among various stakeholders in the tourism industry.

4.3 ASEAN and National Master Trainer and Master Assessor Training Workshop

As part of the ASEAN MRA for Tourism Professionals, DOT recommended seven participants to attend the ASEAN Master Trainer and Assessor Training, conducted in Bali Indonesia last 2012. There were three participants who attended the 3-week Master Trainers workshop, and four who attended the 2-week Master Assessor training workshop. These nominees were endorsed by TESDA and/or TIBFI. Part of their return service is an undertaking to conduct a similar program in the Philippines. The trainers for the ASEAN Master Trainer and Assessor Training program evaluated the performance of the participants, which had Levels 1 to 4, with Level 1 as the highest.

The levels and their description are as follows:

- **Level 1: (25-30) Outstanding Master Trainer/Assessor**—This Master Trainer/Assessor has demonstrated

In-depth understanding of the background to vocational training in the ASEAN context, the MRA and the toolbox project; In-depth understanding of the structure, purpose and application of CBT/CBA; In-depth understanding of the ASEAN context and the MRA ; A high level of English language (listening, speaking, reading, writing); Ability to train and assess trainers and assessors at the **ASEAN** level and able to assess the competencies of other Master Trainers and Assessors.

- **Level 2: (19-24) Competent Trainer/Assessor** — All of the above but at a reduced level of ability and experience. Able to train and assess trainers and assessors at a **National** level but not yet able to assess the competencies of other Master Trainers and Assessors.

- **Level 3: (15-19) Competent Trainer/Assessor** — Has many of the skills and abilities mentioned above but needs further development in: English, CBT, CBA, Developing an assessment schedule; Suitable to conduct training and assessment of trainers and assessors at a **Regional** level but not yet able to assess the competencies of other Master Trainers and Assessors.

- **Level 4: (0-14) Not yet Competent Trainer/Assessor** — Unsuitable to perform the role of Master Trainer or Assessor either due to certain character faults or lack of knowledge, ability, aptitude, attitude or communicative ability (in English and/or native language) or requires more intensive study and vocational experience in order to be able to assess other trainees or assessors.

There were also six competencies that Master Trainers/Assessors need to learn and demonstrate competency during the assessment. These are:

- C1 Can conduct training/assessment in English
- C2 Demonstrates ASEAN competency based training/assessment knowledge
- C3 Demonstrates application of an ASEAN Toolbox in the design of a competency based learning and/or assessment program
- C4 Demonstrates the ability to conduct training/assessment independently
- C5 Has sufficient ability to support experienced trainers/assessors
- C6 Demonstrates knowledge of and has the ability to implement the ASEAN competencies of the CATC to conduct training/assessments in at least one specialist area (e.g., English, housekeeping or in the common core)

The Philippine delegation for the ASEAN Master Training had five participants who received Level 1 and two participants who received Level 2 rating. Of these delegations, four were involved in the cascade training for the National Master Trainer and Assessor workshop.

In the National Master Training and Assessment Workshop, out of the 37 participants 35 participants were able to complete the program. They were also rated by the trainers from Level 1 to Level 4, however descriptors were modified in the coverage area. Level 1 can train/assess **Nationally**, level 2 can train/assess **Regionally**, level 3 can train/assess **Provincial** and level 4 is the same. Assessment and evaluation is still being finalized by the trainers. With additional 35 possible trainers/assessors, who represent various regions in the country, there would be more possible speakers in ASEAN MRA Awareness seminars as the awareness module was part of the training program.

5. Conclusion

With the ASEAN Economic Community implementation by 2015, with less than two years to go before the end of 2015, there is much work to be done by industry, educators and government to ensure that benefits and impact will be positive for all.

As there are more trainers who can conduct the ASEAN MRA for Tourism Professionals Awareness seminar due to the National Master Participants, it is recommended to conduct the same awareness seminar in their region to reach more participants.

For curriculum integration of ASEAN competency standards, TESDA is already undertaking a study of harmonizing the Philippine tourism qualifications with the ASEAN tourism qualifications. Once this is done, schools can undertake a curriculum mapping to include the Common ASEAN Tourism Curriculum, and make their curriculum design compliant with Philippine and ASEAN competency standards.

For industry, they can review and align their job description with ASEAN standards as well as conduct staff development programs that will level up the competencies of their current employees. It is also recommended to recruit employees that are holders of TESDA certificates for specific critical positions in the tourism industry.

If these activities are undertaken, then there is a higher possibility that more tourism stakeholders will be able to Find...ASEAN MRA for Tourism Professionals.

Acknowledgement

The author is grateful for the support of the following people, who made this study possible:

- Lyceum of the Philippines University management team, headed by Atty. Roberto Laurel, and Dr. Conrado Iñigo, Jr. for supporting my involvement in the ASEAN MRA for Tourism Professionals activities;
- Department of Tourism (DOT) — Dir. Rica Bueno and Arlene Alipio; Tourism and Industry Board Foundation Inc. (TIBFI) — Anabelle Ochoa and Keesha Buted; whose support allowed me to understand, appreciate and spread the news of ASEAN MRA
- to my family, Dennis, Carlo, Pipay and Cara, whose emotional support allowed me to work during “family time”,
- And to God, whose continuous presence in my life makes learning possible and a great adventure!

References:

ASEAN website, available online at: <http://www.asean.org/asean/about-asean>.

Commission on Higher Education Memorandum Order No. 32, series 2010. Moratorium on the Opening of All Undergraduate and Graduate Programs in Business Administration, Nursing, Teacher Education, Hotel and Restaurant Management, and Information Technology Education effective School year 2011-2012, accessed April 2014, available online at: <http://www.ched.gov.ph/wp-content/uploads/2013/07/CMO-No.32-s2010.pdf>.

Philippine Department of Tourism (2014). “National tourism development plan for 2011-2016”, accessed April 2014, available online at: <http://www.visitmyphilippines.com/index.php?title=NTDPFINALDRAFT&func=all&pid=3203&tbl=1>.

Tourism Industry Board Foundation Inc (TIBFI) website, available online at: <http://www.tourismindustryboard.org>.

Appendix A Pre & Post Test Sample

Name: _____

Date _____

Diagnostic _____ Post _____

Location _____

Choose the best answer for each question by writing the answer on the first column.

1. There are ____ countries in ASEAN.
 - a. Six
 - b. Nine
 - c. Ten
 - d. Twelve
 - e. None of the above
2. The country that is not part of ASEAN
 - a. Hongkong
 - b. Myanmar
 - c. Indonesia
 - d. Philippines
 - e. None of the above
3. The ASEAN Economic Community will
 - a. Establish ASEAN as a single market and production base
 - b. Accelerate regional integration in the priority sectors
 - c. Facilitate movement of business persons, skilled labor and talents
 - d. Strengthen the institutional mechanism of ASEAN
 - e. all of the above
4. The ASEAN Tourism Agreement provides for the (*more than 1 answer*):
 - a. Promotion of ASEAN as a single tourism destination with world class standards, facilities and attractions
 - b. Enhance mutual assistance in human resource development and training in the tourism sector
 - c. Facilitate the mobility of tourism professionals and workers
 - d. Exchange of information on best practices in competency based education and training for tourism professionals
5. The ASEAN Common Competency Standards for Tourism Professionals (ACCSTP) are arranged sets of competencies required for tourism professionals who seek to work in a specific labor division that are common across various sectors of tourism in ASEAN member countries.
 - a. True
 - b. false
6. What is a tourism labor division that is not yet defined by the MRA?
 - a. Front office
 - b. Housekeeping
 - c. Tour guiding
 - d. Food and beverage services
 - e. None of the above
7. The MRA among the ASEAN member countries is
 - a. Optional
 - b. Requirement
8. Match Column A with Column B

Column A	Column B
A National Tourism Professional Board	1 Department of Tourism
B Tourism Professional Certification Board	2 All NTOs and NTPBs
C National Tourism Organization	3 Technical Education Skills Development Authority
D ASEAN Tourism Professional Monitoring Committee	4 Tourism Industry Board Foundation Inc.
9. The toolboxes contain (more than 1 answer)
 - a. Instructor's materials
 - b. Trainees materials
 - c. Assessment materials
 - d. Reference materials
 - e. All of the above
10. By 2015, there will be free movement of
 - a. Goods
 - b. Services
 - c. Investment
 - d. Skilled labor
 - e. All of the above

Determinants of Movie Review Ratings — New Method by Using Big Data

Tadashi Yagi, Seiya Murata
(Doshisha University, Japan)

Abstract: We present a method for analyzing the determinants of ratings in reviewing creative works by examining the case of movies in Japan. In Japan, the Yahoo Movie Review website presents viewer ratings, comments, the number of followers, and evaluations by followers. We develop a system for extracting information from this website and analyzing keywords in comments for positive and negative emotional expressions by using the “IBM SPSS Text Analytics for Survey” text-mining software. This allows conversion of text data to numerical data, and application of principal factor analysis and regression analysis. We generate variables representing evaluations of “plot”, “cultural value”, “main theme”, and “setting” of each movie, and analyze the sign, positive or negative, of each variable’s coefficient in a rating by regression analysis. We present a case showing positive evaluations for plot, cultural value, and setting, but negative evaluation for theme.

Key words: text mining; movie review; big data; evaluation

JEL code: Z1

1. Introduction

Various Internet websites allow reviewing movies and performances. These websites can be regarded as a resource for improving the quality of creative works so long as the information presented can be statistically analyzed at a reasonable cost. In this context, automatic review mining and summarization has been gaining attention from various fields, such as product and service businesses.

Zhuang et al. (2006) focus on movie reviews, and find that reviews have unique characteristics. Specifically, movie reviews address not only movie elements such as screenplay, but also movie-related roles such as directors, screenwriters, and actors. They decompose review mining and summarization into: (1) identifying characteristic and opinion words, (2) determining the class of feature word and its opinion polarity, (3) for each feature word, identifying relevant opinion words and obtaining valid feature opinion pairs, and (4) summarizing of the discovered information.

Chaovalit, Pimwadee, and Lina Zhou (2005) investigated movie review mining by two approaches: machine learning and semantic orientation. Mohammadi, Gelareh, Sagae, Vinciarelli, and Morency (2013) explored the effect of multi-modality and perceived personality on persuasiveness of social multimedia content by using movie review clips from YouTube. Their interest is similar to ours in that they tried to clarify factors affecting degree of persuasion.

Tadashi Yagi, Professor, Doshisha University; research areas/interests: cultural economics. E-mail: tyagi@mail.doshisha.ac.jp.

Seiya Murata, Graduate Course Student, Doshisha University; research areas/interests: cultural economics. E-mail: den0206@mail3.doshisha.ac.jp.

We present a method for analyzing the determinants of ratings in reviewing creative works by using the case of movies in Japan. In Japan, the Yahoo Movie Review website presents viewer ratings, comments, the number of followers, and evaluation by followers. As a first step, we developed a system of automatically extracting information from the website, and generating an Excel-format database. This system was developed in the PHP programming language after analyzing the HTML format of pages on the website. In the second step, we developed a system for extracting information from this website and analyzing keywords in comments for positive and negative emotional expressions by using the “IBM SPSS Text Analytics for Survey” text-mining software. This allows conversion of text data to numerical data, and subsequent application of principal factor analysis and regression analysis.

We then generated variables representing evaluations of “plot”, “cultural value”, “main theme”, and “setting” of each movie, and analyzed the directional effect of each variable on rating by regression analysis. This paper presents a case showing positive relations for plot, cultural value, and setting, but a negative relation for theme. More elaborate development of the analysis method is expected to facilitate detailed clarification of factors that stimulate viewers’ interest.

2. Method

2.1 Characteristics of the Movie Review Site

In Japan, “Yahoo Movie Review” is a well-known movie review site. The characteristics of this site are summarized as follows.

(1) Free-description-type comments

Reviews include text comments containing various emotional expressions that can be linked with various types of words, including nouns.

(2) Evaluation scale

Reviewers evaluate movies on a scale from 1 (lowest) to 5 (highest).

(3) Degree of review usefulness evaluations

Reviews themselves can be graded by readers, especially regarding review usefulness.

(4) Posting date and time information is available

Posting date and time information are used in adjusting the number of followers, because the number increases as time passes.

We use reviews of the movie “Ask This of Rikyu (*Rikyu ni Tazuneyo*)” for analysis. Sample size as of March 1, 2014 is 224. This sample size is used for the analysis in the paper. The address of the review site is <http://info.movies.yahoo.co.jp/detail/tymv/id345694/>. This is a historical drama based on a novel by Kenichi Yamamoto, for which he won the Naoki Prize. The main theme of the movie is the “aesthetic” pursued by an historic tea master Sen no Rikyu. A controversial plot point is that Rikyu was inspired by the aesthetics of a Korean woman who was kidnapped by the Japanese. It is a historical fact that Rikyu loved tea cups and various items related to tea ceremony imported from Korea. However, many Japanese people are reluctant to accept this fact, and believe that the tea ceremony originated in Japan. For this reason, both extremely positive and extremely negative reviews are presented. An example negative review follows.

The presented origin of the tea ceremony is unacceptable, delivered in a manner like a Korean drama, which is quite sloppy. In the movie, Rikyu explores aesthetics, but its source is a tragic love of his youth. The movie

proclaims that this aesthetic, which originates in Korean culture, overwhelms the power of authority, and thus cannot be transmitted during Rikyu's life. Rikyu committed ritual suicide to protest the actions of Hideyoshi Toyotomi [a preeminent daimyo, warrior, general, and politician of the Sengoku period]. The movie suggests that the true reason for his suicide is a mystery. I think Rikyu acts as a foil to the complexity of Hideyoshi because of his origin as a farmer, and he could not understand aesthetics fundamentally. This invoked hatred between Hideyoshi and Rikyu. Rikyu said "I obey only aesthetics," and it is natural that authority could not tolerate these words. Ebizo [a famous kabuki actor] exhibited a certain aura while playing Rikyu, but I think his charm is not as fully exhibited as it is in kabuki.

We investigate factors that determine the final evaluation of reviews by examining the review text and evaluation points given by reviewers. This task is important because impressions of reviews are biased by highly emotional words, making it hard to examine the actual factors that determine the evaluation. For example, words such as "disappointed", "nonsensical", "absurd", "below the level of B-movie quality", "regret seeing it", and "contempt for Japanese aesthetics and history" are observed in the reviews. Without analysis, such descriptions may make readers believe that the movie is not worth viewing. It is not obvious, however, how assigned movie ratings and ratings of the reviews themselves are affected by these words. Analysis allows examining the actual factors that affect grading and clarifies the true functioning of movie review sites.

2.2 Text Mining

We used "IBM Text Analytic Survey" as text mining software. The first step was to extract words, and the second was to categorize those words. When categorizing words, emotional words were used to link nouns and verbs. By selecting the type of category, we can depict linkage among words. Here, we selected positive emotional words and extracted the related words.

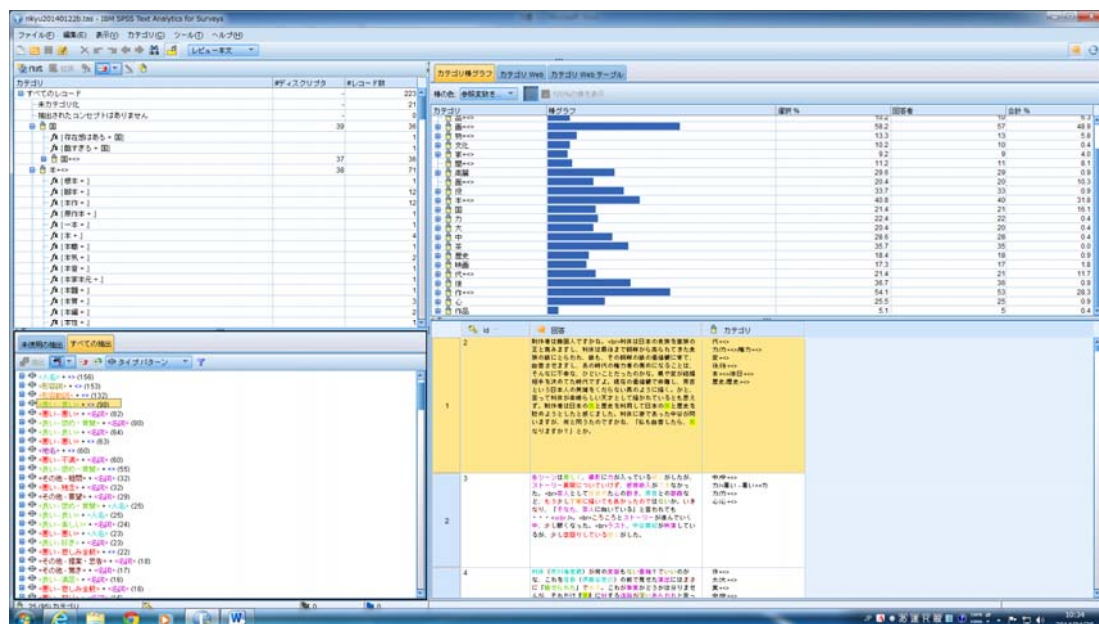


Figure 1 Screen of IBM Text Analytic Survey

As is shown in Figure 1, the text mining software relates words with emotional words such as "good", "bad", "praise", and "grief", the number of words relating to these emotional types is listed in the bottom-left window of

the software. By selecting, for example, “good” and “praise”, we can produce a bar chart of the frequency of related words in the upper right window. We then exported this output as an Excel file, combined it with the original Excel file, and produced the SPSS file.

2.3 Extracting Factors that Determine Evaluation Grading

The next task is to extract factors that determine evaluation grading. We apply principal factor analysis to reduce the number of variables and classify the words. As a result of the analysis, we extracted four factors for words associated with positive emotional words.

Table 1 Sum of Explained Variance in Principal Factor Analysis for Words Associated with Positive Emotional Words

Factor	Initial eigenvalue			Sum of squares of loadings after extraction			Sum of squares of loadings after rotation
	Sum	% of variance	Cumulative % of variance	Sum	% of variance	Cumulative % of variance	Cumulative % of variance
1	3.792	13.077	13.077	3.059	10.548	10.548	5.552
2	2.020	6.965	20.042	1.243	4.287	14.835	10.916
3	1.618	5.581	25.622	0.877	3.025	17.860	15.450
4	1.490	5.138	30.760	0.729	2.513	20.374	19.740

Table 2 Structural Matrix of Principal Factor Analysis for Words Associated with Positive Emotional Words

	Plot	Tea items	Culture	Tea ceremony
Created + ◇	0.545	0.026	0.021	0.096
Mind / heart + ◇	0.238	0.141	0.073	0.214
Tea / tea + ◇ / tea + ◇	0.108	0.373	-0.028	0.190
Generation + ◇	0.122	0.169	-0.028	0.412
Power / force + ◇ / power + ◇	0.024	0.026	0.128	0.360
Movie + - <good fun> Movies /	-0.027	-0.067	0.182	-0.013
Book + ◇	0.289	0.202	0.084	0.090
Medium / medium + ◇	0.224	0.173	0.084	0.377
Surface + ◇	0.259	0.349	0.137	0.151
Large / large + ◇	0.253	0.517	-0.002	0.212
This + ◇ / today + ◇ / Japanese culture + ◇	-0.050	-0.064	0.162	0.079
Tea / tea + ◇ / tea ceremony + ◇	0.019	0.059	0.235	0.321
Power / force + ◇	0.286	0.077	0.494	-0.079
Created + ◇ / Movies + ◇	0.490	0.059	0.055	0.214
House + ◇	-0.045	0.241	-0.046	0.242
Between + ◇	0.031	0.315	-0.015	0.041
Culture / Culture + ◇	-0.026	0.056	0.481	-0.013
Goryeo / Koryo + ◇	0.153	0.446	0.198	0.074
After / rear + ◇	0.277	0.225	-0.014	0.173
Goods + ◇	0.145	0.242	0.010	-0.026
Country / country + ◇	-0.061	0.070	0.463	0.153
Role / role + ◇	0.591	0.198	0.068	-0.102
Road + ◇	0.104	-0.036	0.015	0.465
Image + ◇	0.336	0.171	-0.221	0.154
This + ◇ / today + ◇	-0.014	-0.010	0.294	0.193
Field + ◇	0.077	0.076	0.192	0.099
History / History + ◇	0.038	-0.258	0.217	0.202
Thing + ◇	0.136	0.515	0.149	-0.112
Real + ◇	0.105	0.070	0.404	0.057

Tables 3 and 4 present the results of principal factor analysis for words associated with negative emotional words.

Table 3 Sum of Explained Variance in Principal Factor Analysis for Words Associated with Negative Emotional Words

Factor	Initial eigenvalue			Sum of squares of loadings after extraction			Sum of squares of loadings after rotation
	Sum	% of variance	Cumulative % of variance	Sum	% of variance	Cumulative % of variance	Cumulative % of variance
1	2.867	11.027	11.027	2.326	8.947	8.947	4.337
2	1.782	6.855	17.883	1.210	4.653	13.600	8.563
3	1.688	6.490	24.373	1.072	4.123	17.723	12.743
4	1.628	6.260	30.633	1.051	4.043	21.766	16.325
5	1.222	4.698	50.462	0.622	2.392	32.653	29.480

Table 4 Structural Matrix of Principal Factor Analysis for Words Associated with Negative Emotional Words

Factors	Rikyu	Spiritual	Nationalism	History	Korea
Movie + - <bad bad> Movies /	-0.040	-0.035	-0.027	0.132	-0.035
Movie + - <good good> Movies /	0.001	0.020	0.011	-0.067	-0.031
<Good - praise, praise> Movies / Movie +	0.354	-0.047	-0.009	-0.026	0.143
Movie + - <good fun> Movies /	-0.109	0.267	-0.071	0.121	0.063
<Good - praise, praise> Movies / Movies +	-0.005	0.077	0.085	-0.038	0.041
Role / role + ◇	0.299	0.023	-0.003	0.047	0.055
History + - <bad bad> History /	-0.116	-0.064	-0.144	0.537	0.002
Goryeo / Koryo + ◇ / Goryeo woman + ◇	-0.052	-0.110	0.395	0.020	0.142
History / History + ◇	0.163	0.039	0.128	0.648	-0.101
Goryeo / Koryo + ◇	0.184	0.108	0.272	-0.046	0.776
Country / country + ◇	-0.161	0.054	0.555	0.029	0.150
Mind / heart + ◇	0.109	0.712	0.037	0.001	0.010
Mind / heart + ◇ / suicide + ◇	-0.024	0.270	-0.066	-0.020	0.244
Field + ◇	0.232	-0.124	0.219	0.011	-0.022
Surface + ◇	0.186	0.271	0.200	-0.058	0.104
House + ◇	0.066	-0.001	0.034	0.002	0.106
Between + ◇	0.054	0.079	-0.088	-0.053	0.024
Tea / tea + ◇ / tea + ◇	0.095	0.033	0.180	-0.044	0.045
Tea / tea + ◇ / tea ceremony + ◇	0.034	0.017	0.492	-0.004	-0.060
Tea / tea + ◇	0.273	0.468	0.068	0.059	0.026
Real + ◇	-0.016	0.108	0.209	0.392	0.083
Road + ◇	0.205	0.238	0.254	0.093	-0.153
Image + ◇	0.650	0.089	-0.032	-0.033	-0.019
Goods + ◇	0.025	0.057	-0.006	0.054	0.059
This + ◇ / real + ◇	0.349	0.082	-0.056	0.027	0.038
Book + ◇	0.130	0.054	0.068	0.004	-0.068

3. Regression Analysis on the Determination of Factors for Grading

We conducted regression analysis with the factors derived by principal factor analysis on the set of words

associated with either positive or negative emotional words. Table 5 and Figure 2 show the results for grading evaluation. The standardized coefficients are comparable in size because the variable unit is normalized. Larger values of the standardized coefficient imply that the effect on grading evaluation is stronger. The results show that “Tea Ceremony” was associated with positive emotional words, and had the strongest positive effect on evaluation grading. “Rikyu” was associated with negative emotional words, and had the second strongest positive effect on evaluation grading. “Nationalism” and “history” associated with negative emotional words, and decreased evaluation grading. “Korea” was associated with negative emotional words, and increased evaluation grading.

Table 5 Regression Result for Factor Determination for Grading Evaluation

	Coefficient		Standardized coefficient	<i>t</i>	<i>p</i> -value
	B	Standard errors			
(Constant)	2.583	0.091		28.254	0
Tea Items (positive)	-0.299	0.222	-0.155	-1.348	0.179
Tea Ceremony (positive)	0.655	0.205	0.329	3.198	0.002
Rikyu (negative)	0.399	0.168	0.207	2.378	0.018
Spiritual (negative)	0.223	0.141	0.119	1.58	0.116
Nationalism (negative)	-0.379	0.214	-0.194	-1.767	0.079
History (negative)	-0.382	0.157	-0.197	-2.434	0.016
Korea (negative)	0.266	0.14	0.148	1.909	0.058

Note: Adjusted R^2 : 0.183.

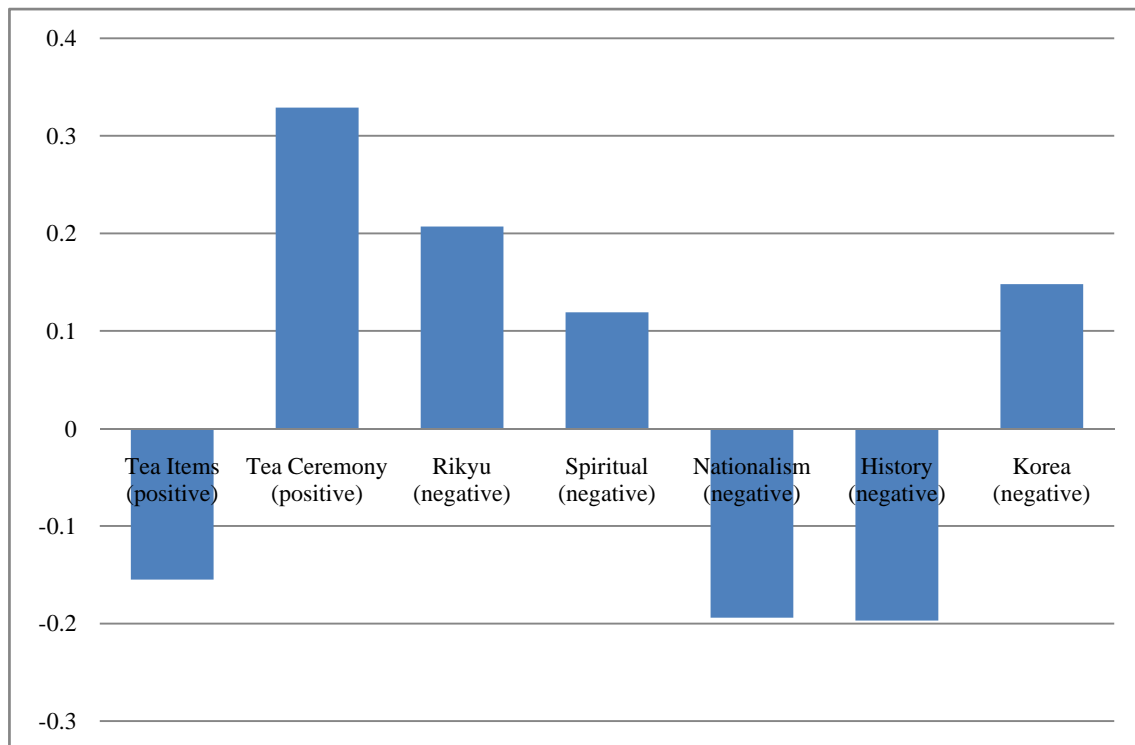


Figure 2 Standardized Coefficient for the Determinant of Grading Evaluation

Table 6 and Figure 3 show the results for grading usefulness. “Tea items” was associated with positive emotional words and had a positive effect on grading usefulness. “Tea ceremony” was associated with positive

emotional words, but had the strongest negative effect on grading usefulness. “Nationalism” and “history” were associated with negative emotional words and had a strong positive effect on grading usefulness.

Table 6 Regression Results for Factor Determination for Grading Evaluation

	Coefficient		Standardized coefficient	<i>t</i>	<i>p</i> -value
	B	Standard			
(Constant)	38.094	3.108		12.258	0
Tea Items (positive)	12.917	7.54	0.205	1.713	0.088
Tea Ceremony (positive)	-15.114	6.963	-0.232	-2.171	0.031
Rikyu (negative)	-8.756	5.702	-0.139	-1.535	0.126
Spiritual (negative)	-7.75	4.809	-0.126	-1.612	0.109
Nationalism (negative)	13.92	7.282	0.218	1.911	0.057
History (negative)	9.447	5.329	0.149	1.773	0.078
Korea (negative)	-3.197	4.743	-0.054	-0.674	0.501

Note: Adjusted R²: 0.116

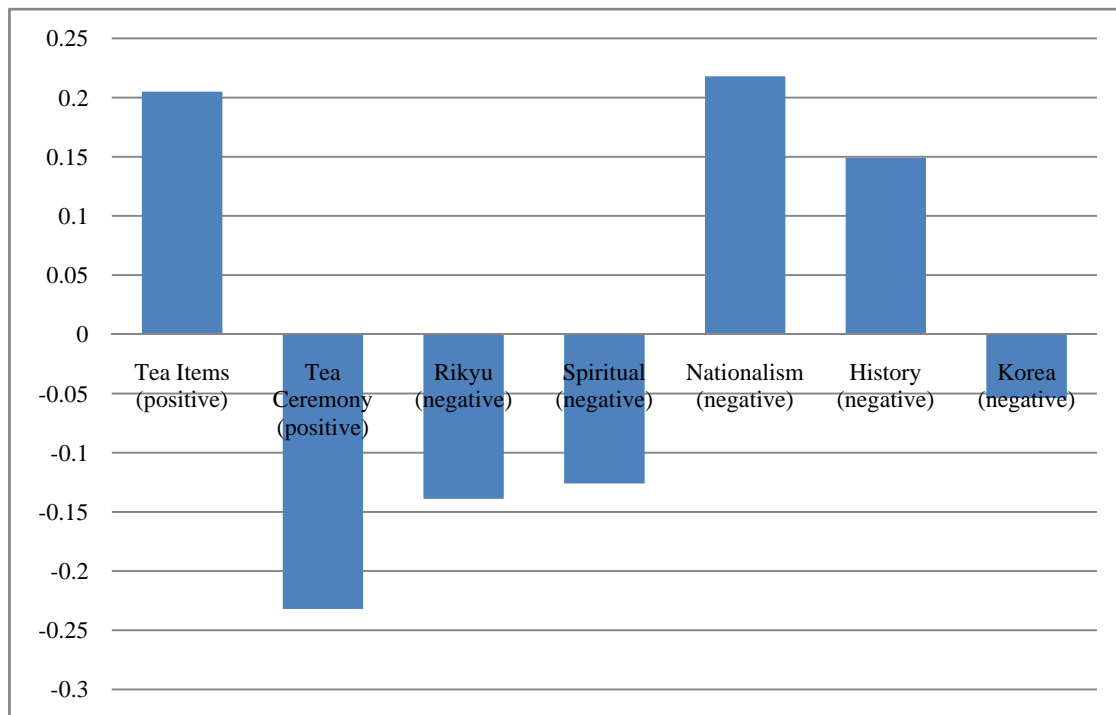


Figure 3 Standardized Coefficient for the Determinant of Grading Usefulness

4. Relation between Evaluation Grade and Sales

To understand the role of movie reviews in more detail, we examined factor determinants that explain sales. Data were taken from the website of the Motion Picture Producers Association of Japan (<http://www.eiren.org/toukei/index.html>). This is the data for 2013. Sample size is 35. Table 7 shows the results of regression analysis on sales determinants. The number of evaluators is strongly associated with sales, but

evaluation rankings had no explanatory power. Toho and Toei are the two largest Japanese movie companies, but as Figure 4 shows, GAGA achieves the largest average sales per movie.

These results suggest that high evaluations do not guarantee the commercial success of a movie. Commercial success is, however, reflected in the number of reviewers. It is interesting that Toei films have higher average evaluations than those from Toho, but the average sales and number of reviewers are smaller. In particular, compared with Toho films, Toei films had far fewer reviewers. One possible explanation is that Toho targets mass-market consumers, but Toei produces movies targeting film connoisseurs.

Table 7 Regression Analysis on Sales Determinants

	Coefficient		Standardized coefficient	<i>t</i>	<i>p</i> -value
	B	Standard			
(constant)	8.738	12.235		0.714	0.481
Grade in evaluation	-1.371	3.321	-0.039	-0.413	0.683
Number of reviewers	0.020	0.002	0.842	8.753	0.000
Toho_dummy	9.341	5.196	0.225	1.798	0.083
Toei_dummy	13.690	6.538	0.257	2.094	0.045
GAGA_dummy	11.842	12.240	0.098	0.967	0.341

Note: Adjusted $R^2 = 0.693$

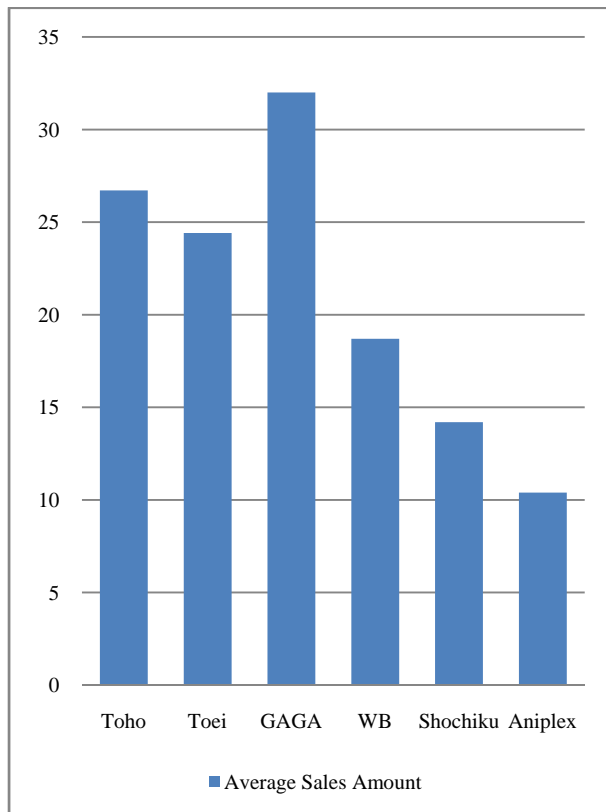


Figure 4 Average Sales Amount (unit: 100 million Yen)

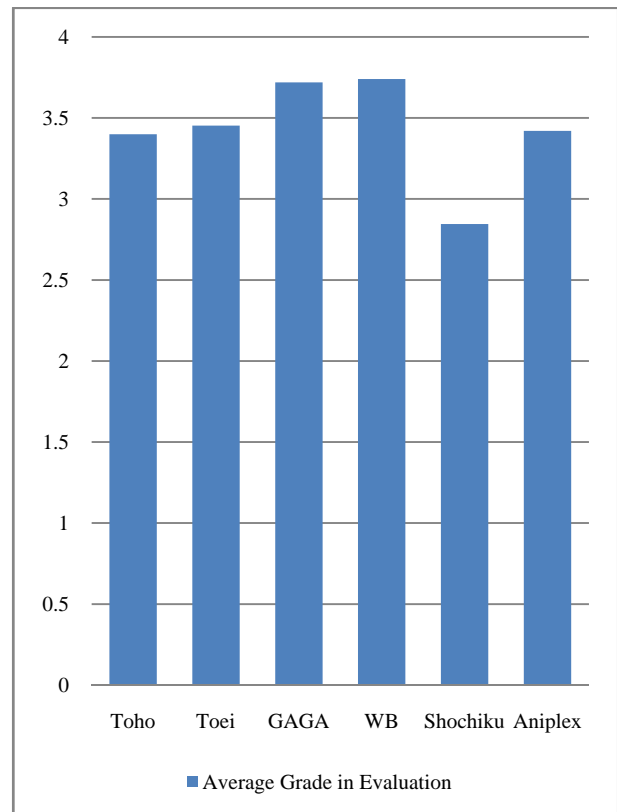


Figure 5 Average Grade in Evaluation

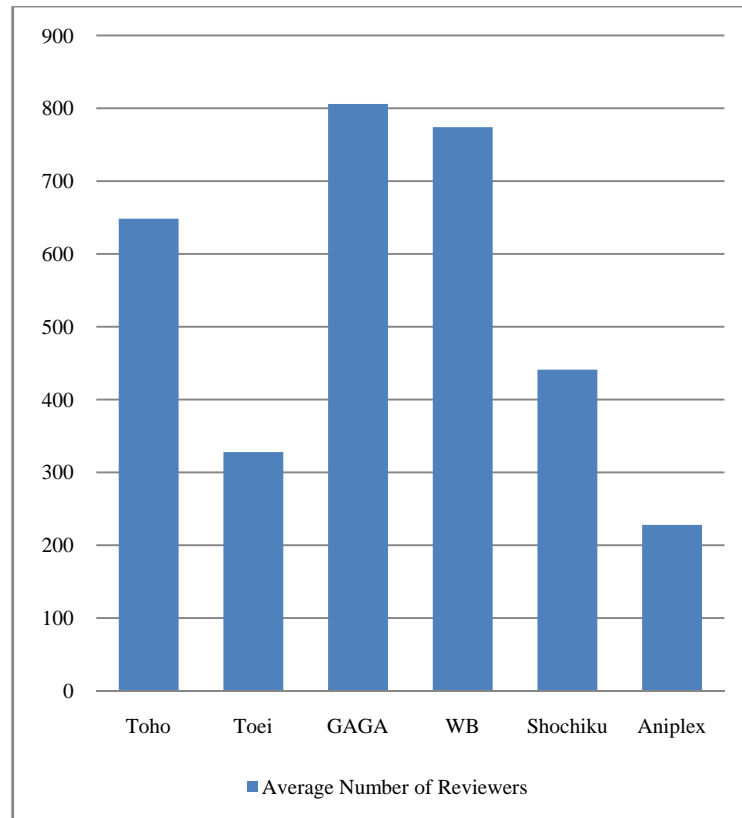


Figure 6 Average Number of Reviewers

5. Conclusion

The results of regression analysis show the merits and the limitations of this analytical procedure. This analysis allows separation of factors influencing reviews and those that do not. Without this kind of analysis, it is difficult to distinguish whether factors associated with emotional words actually affect grading, even when the emotional words give a strong impression to review readers. One limitation of this analysis is ambiguity in interpreting the results. “Tea ceremony” was associated with positive emotional words and had a positive effect on grading evaluation. The result itself gives limited interpretable information. To interpret the results, it is therefore necessary to defer to the original comments. Alongside such follow-up tasks, the information given by this kind of analysis provides us with precious information regarding movie reviews.

Finally, we would like to discuss utilization of review sites by movie producers. We showed that commercial success is not guaranteed by review evaluations. However, this does not imply that the grade does not reflect movie quality. The method we propose allows judging the true factors in determining evaluation grading and gives us detailed information on the relation between quality and evaluation. In the movie market there exists a stratification of viewer quality, where mass-market viewers can be considered of medium or low quality. Commercial success in the mass market does not necessarily guarantee long-term success in the movie business without improvement to movie quality.

References:

- Chaovalit Pimwadee and Lina Zhou (2005). "Movie review mining: A comparison between supervised and unsupervised classification approaches", *Proceedings of the 38th Hawaii International Conference on System Sciences*.
- Lara Frankie (2012). "Creativity and the cinema movie review: It's a kind of funny story", *Journal of Creativity in Mental Health*, Vol. 7, pp. 304-307.
- Mohammadi Gelareh, Kenji Sagae, Alessandro Vinciarelli and Louis-Philippe Morency (2013). "Who is persuasive: The role of perceived personality and communication modality in social multimedia", in: *ICMI '13 Proceedings of the 15th ACM on International Conference on Multimodal Interaction*, ACM New York, pp. 19-26,
- Wijdicksand F.M. Eelco (2011). "Movie review: Do neurologists need to know jack?", *Neurology Today*, January 6, 2011.
- ZhuangLi, Feng Jing and Xiao-Yan Zhu (2006). "Movie review mining and summarization", *CIKM'06*, November 5-11, 2006.

Family Impact on Capital Structure: Does Financial Crisis Matter?

Inês Lisboa

(Polytechnic Institute of Leiria, 2411-901 Leiria, Portugal)

Abstract: This study analyses whether family control impacts the firm's capital structure and if results are influenced by financial turbulences. Using a sample of Portuguese listed firms during fourteen years, results show that family and-non family firms have different debt levels in periods of expansion. Moreover, the higher concentration of family ownership leads to reduction in the firm's leverage, especially in recession periods. These results confirm the behavioural-agency theory: the family looks to socio-emotional wealth but assuring the firm presence for future generations.

Key words: family firms; family control; F-PEC scale; capital structure; debt; financial crisis

JEL codes: G32, G34, E32

1. Introduction

Capital structure thematic appeared in 1958 with Modigliani and Miller. Since then it has been greatly researched. Diverse theories appeared to explain the optimal capital structure: trade-off, pecking-order, and agency-cost theories. Although results are mixed and inconclusive, which can be caused by diverse factors such as the country analyzed, firm's own characteristics, among others (Fauzi et al., 2013). In this study I analyze the impact of family control on the firm's capital structure. Within this line of research, several papers exist which provide evidence about the impact of family on the firm's capital structure (Anderson et al., 2003; King & Santor, 2008; Margaritis & Psillaki, 2010; Croci et al., 2011; Schmid, 2012; Fauzi et al., 2013).

I shed new light in this topic by analysing if the impact of family firms on financial decisions is influenced by expansion or recession periods. I also analyse if the family control impacts the level of firm's leverage. This study contributes to the existing body of empirical literature in three ways. First I analyze the Portuguese case, a small-sized market that is gaining prominence in the Europe and worldwide. Family firms represent around 70-80% of the Portuguese firms, and 50% of the PSI-20, the stock market index formed by the twenty largest and most liquid firms quoted on the Portuguese market. Most studies have been carry out to major countries as U.S. market, Europe, France, Germany, New Zealand, among others. In this sense this study will expand international evidences and allow comparisons with other data sets, which should be quite useful for investors, managers and researchers.

The second contribution is related to the ways proposed to measure the family impact on the firm capital structure. In a first step, I classify family firms using the "family controlled" definition: a family firm is a company that is owned and controlled by a family. Then I use two alternative measures of the family influence: the percentage of family ownership and the F-PEC scale of Astrachan et al. (2002). The F-PEC scale includes

Inês Lisboa, Professor, School of Technology and Management, Management for Sustainability Research Centre, Polytechnic Institute of Leiria; research areas/interests: finance, corporate governance, family firms. E-mail: ines.lisboa@ipleiria.pt.

three subscales: power, experience and culture, assuring that family identity in the firm. As far as I am aware, this way to measure the family control has not been previously addressed on capital structure literature.

Finally, I also include the impact of market cycles to this analysis. I analyze a period of fourteen years, with extreme down market periods and extreme up market periods. Firms may react differently in expansion and contraction periods. In expansion periods, firms may not only be concerned with the firm maximization but also with some personal benefits, as reputation, social status. In recession periods, the conflict of interests between major and minority shareholders and also between shareholders and debt holders may increase. These differences in results can be enhanced to family firms since, regarding the behavioral-agency theory, the family desire to maintain socio-emotional wealth, but assuring the firm's performance and survival.

The main results show that market cycles does matter to explain the family impact on the firm financial decisions. Family firms present higher debt levels, compared to non-family firms, in expansion periods, but similar debt levels in recession periods. Moreover, family and non-family firms leverage is influenced by different variables. Higher concentration of family ownership leads to lower debt levels, especially in recession periods. These findings corroborate the need of family control and to avoid agency costs. These findings are especially relevant for institutional and individual investors in a national and international context, academics, and the professional managers of these companies.

The remainder of the article is organized as follows. Section 2 presents the theoretical background and the hypothesis of this study. Section 3 describes the methodology employed. Section 4 describes the sample data and summary statistics. Section 5 contains empirical results. Finally, Section 6 has concluding remarks.

2. Theoretical Background

2.1 Family Firm Definition

Berle and Means highlight the importance of ownership structures on the firm in 1932. Since then, diverse researchers have focused their attention on this field, especially on family firms. Although, there are numerous definitions of family firms, which makes it difficult to compare different studies (Miller et al., 2007). Analyzing a large list of family firms' concept I find two fundamental elements: ownership and management. In this study I focus the definition on "family controlled", since in Portugal, the family's identity and culture is present whenever the family has an impact on the firm ownership and management. I looked for the firm's history to assure the family involvement. Contrary to some studies, I did not establish a minimum threshold for family ownership. I consider it is not an important goal in this work, because I use family ownership as variable to analyze the impact of the family involvement in the firm's capital structure. Moreover, according to Martín-Reyna and Duran-Encalada (2012), the cultural and legal contexts, which differ from country to country, are contingent on family business. Consequently family firm is defined as a company owned and controlled by a family. This definition is similar to that of Anderson and Reeb (2003), and Villalonga and Amit (2006).

2.2 Research Focus and Hypothesis

The firms can use two common types of financing: equity and debt (Fauzi et al., 2013). Each type of financing has its own advantages and limitations when compared to one another. In 1958 Modigliani and Miller argued that firms have benefits to use debt, namely tax savings. Although, using debt also have costs such as bankruptcy and agency costs (De Angelo & Masulis, 1980; Jensen & Meckling, 1976). These assumptions lead to the trade-off theory: to maximize the firm value, the firm tries to find the optimal capital structure, which is a

combination of debt and equity. Moreover, the dynamic pecking order theory created by Myers (1984) and Myers and Majluf (1984) indicate that stakeholders will not apply their funds in the firm when information asymmetry is high. The CEO knows the firm value and potential, but financial investors may not perceive the firm's real value due to the lack of information, which may lead to irrational decisions.

These theories: tax savings, bankruptcy costs, agency costs and information asymmetry are relevant to explain family firms. Family firms present singular characteristics compared to non-family firms, which can justify the differences in the firm's capital structure. The family, especially the founder, sees the firm as an extension of his wealth (Anderson & Reeb, 2003). Therefore the family personal risk is intrinsic to the firm risk. Moreover, the family is not only concerned to maximize the firm value, but also with the family socio-emotional wealth (behavioral-agency theory of Gomez-Mejia et al., 2007). To sustain the firm presence in the market and pass on the firm to future generation, the family avoids external capital since it leads to higher risk of failure, especially in recession periods.

The firm control is usually present in this type of firms. The family is not only an investor but is also present in the board of directors. To fill the need to exercise the family influence, the family has an incentive to control managers' opportunism, when the CEO is not a family member. Thus the classical agency problem of Jensen and Meckling (1976), between the principal and the agent, is mitigated or at least reduced. The family also avoids agency costs between the principal and the debt providers (Schmid, 2012). To sustain the firm's control and to avoid financial distress the family looks for internal capital or to family financing. The family control leads to concentration of information about the firm: aims, strategy, value, financial potential. As family firms' information is scarce and less transparent it may be difficult to creditors to offer opportunities of financing. Moreover, due to the family control, these firms have less need to pay out dividends, which in turn leads to increase internal financing potential (Schmid, 2012).

Even if using debt can generate tax saving, the family has innumerable reasons to avoid it due to the fear of risk taking, especially in recession periods. Schmid (2012) found that the family adjusts the capital structure to work in the family favor. While in expansion periods some family needs may be accomplished, in recession periods the family may avoid risky decision in order to sustain the firm presence in the market (Gomez-Mejia et al., 2007).

When comparing family and non-family firms, the conclusions are not unique. Anderson et al. (2003), for instance, did not find differences in the debt structure of family and non-family firms, when analyzing U.S. firms. For another side, King and Santor (2008) found that Canadian family firms present higher debt ratios than non-family firms. Margaritis and Psillaki (2010), Croci et al. (2011), and Schmid (2012) found the opposite results to France, Europe, and Germany, respectively.

Taken together, these arguments suggest the following hypothesis:

Hypothesis 1: Family firms' capital structure is different from that of non-family ones, and this relation is influenced by market cycles.

Family firms are not a homogeneous group. As a result, the firm's capital structure may be influenced by family involvement in the firm. For one side, family ownership concentration may reinforce the need for control, avoid distress costs, reduce the firm risk, and make information scarcer to financial investors and debt providers. For another side, the long-term survival, and the long investment horizon leads to relationships of trust and loyalty between the family owners and debt providers (Schulze et al., 2003). Thus the family may have less debt financing costs and may look more for outside financing.

Portugal is a country where the tradition and reputation are important, so I expect that when the family ownership increases, the firm's leverage decrease, especially in recession periods when the firm's survival can be questioned. As a result, the following hypothesis naturally follows:

Hypothesis 2: Higher family control reduces the level of debt, especially in recession periods.

3. Methodology

I use panel data methodology since it allows me to detect the individual firm's impact, to control for unexpected heterogeneity, which is usual in governance issues, and for potential endogeneity problems between ownership structure and capital structure (Pindado et al., 2008). I use the GMM (Generalized Method of Moments) approach of Mackinlay and Richardson (1991) to estimate the models proposed. Following Pindado et al. (2008), I use as instrumental variables the ones at the right hand side of the equations.

To measure the impact of family business on the firm capital structure (hypothesis 1) I regress the following model:

$$Leverage = \alpha_t + \beta_1 \times Dfam_t + \beta_2 \times Growth_t + \beta_3 \times Size_t + \beta_4 \times Age_t + \beta_5 \times ROA_t + \beta_6 \times S.G._t + \beta_7 \times MTBV_t + \beta_8 \times Risk_t$$

The firm's leverage is regressed against the dummy variable, which is one when the firm is a family firm and zero otherwise. I also include some control variables: firm's growth, size, age, ROA, sales growth, MTBV, and risk. This model is similar to that of Croci et al. (2011) and Schmid (2012).

To better understand the family firms, one of the study aims, I define the following model:

$$Leverage = \alpha_t + \beta_1 \times \%Fam_t + \beta_2 \times Growth_t + \beta_3 \times Size_t + \beta_4 \times Age_t + \beta_5 \times ROA_t + \beta_6 \times S.G._t + \beta_7 \times MTBV_t + \beta_8 \times Risk_t + \beta_9 \times Dcrisis_t$$

This model is test only to family firms. I use two ways to measure the family ownership (%Fam): percentage of the family equity (%Ow) and the F-PEC scale, which contains three subscales: power, experience and culture.

The models are regressed three times: first using the whole sample and then the sample is divided in two: one including the periods of recession, and other with the expansion periods.

Following previous literature I expect the following relationship between leverage and the variables included in the models:

Table 1 Expected Signs

Variable	Expected Sign	Previous studies
Dfam	-	Margaritis and Psillaki (2010), Croci et al. (2011), Schmid (2012)
%Fam	-	Jensen and Meckling (1976), Gomez-Mejia et al. (2007)
Growth	-	Jensen (1986), Fauzi et al. (2013)
Size	+	Croci et al. (2011), Fauzi et al. (2013)
Age	-	Schmid (2012)
ROA	-	Croci et al. (2011), Schmid (2012), Fauzi et al. (2013)
S.G.	+	Croci et al. (2011),
MTBV	-	Croci et al. (2011), Schmid (2012)
Risk	+	Modigliani and Miller (1963)
Dcrisis	+	---

Note: Expected relationship (+ positive or – negative) between the debt ratio and the variables included in the sample, and previous studies that suggest that relationship.

4. Sample Data

This study focuses on a Portuguese dataset, namely the listed firms of Euronext Lisbon over a sample period of fourteen years, starting on January 1999, the date of the introduction of the euro, until December 2012. I study a single country — Portugal, for several reasons. First, family firms — a primary focus on this study, are a norm rather than an exception in Portugal. Around 70-80% of Portuguese firms and half of the Portuguese listed firms are family firms. Second, it is a small-sized financial market almost unexplored but with a growing importance in the world financial market. In regards to financial turbulences, Portugal is a country in vogue since it asks troika's help to reduce the country's economic deficit and sustain its future finance. Third, the majority of studies relating family firm issues are headquartered in the U.S., and major European countries, neglecting other regions. Analyzing Portugal is a way to expand international evidence and to enable comparisons of existing results for major countries to understand if conclusions are international evidence. Finally, analyzing a single country allows to examine the country-specific characteristics, and the macro and development economic stages, the accounting standards, and the corporate governance environment is the same. Joh (2003) says that a cross-country analysis can underestimate the importance of the country-specific laws.

First I collect ownership data, namely the names of the firm's owners, of the members of the board of directors and of the supervisory board for each year in analysis. Then I manually classify firms into family and non-family. A firm is classified as a family firm whenever there is fractional equity ownership of the founding family and the presence of family members on the board of directors. All the others are non-family firms. Firms which changed from family to non-firms or vice-versa were deleted.

I introduce the family impact on the capital structure using a dummy variable, which is one when the firm is a family firm and zero otherwise (D_{fam}). Moreover I analyze if, to family firm, the family involvement impacts the firm capital structure using the percentage of the family ownership ($\%Ow$) and the F-PEC scale (F-PEC) introduced by Klein (2000) and then developed by Astrachan et al. (2002):

$$Fam (F - PEC) = \left(\frac{EQ_{Fam}}{EQ_{total}} \right) + \left(\frac{BoD_{Fam}}{BoD_{total}} \right) + \left(\frac{SB_{Fam}}{SB_{total}} \right)$$

Where: EQ is the family equity ownership, BoD is the proportion of family members on the board of directors over the total members, and SB is the proportion of family members on the supervisory board over the total members. Table 2 presents the sample structure.

Table 2 Sample Structure

Panel A: Total Sample		
	Family	Non-Family
Number of firms (mean)	37	41
Number of observations (total)	383	367
Panel B: Family Firms		
F-PEC scale	71.55%	-
% family ownership	36.52%	-

Note: Panel A presents the average number of firms and the total number of observations (from 1999 to 2012) of family and nonfamily firms included in the sample. Family firms are firms owned and controlled by a family. Panel B presents the mean value of the family involvement in family firms measured by the F-PEC scale and the family ownership.

The number (mean) of family firms is lightly smaller than the number of non-family firms. Although,

Family Impact on Capital Structure: Does Financial Crisis Matter?

analyzing the number of observations, it is higher to family firms, suggesting that family firms are older and more prevalent than non-family ones. In what regards to family involvement, the percentage is significantly higher using the F-PEC scale. This fact suggests that the presence of the family in the boards of directors is high, since to Portugal the supervisory board should be an independent board of the board of directors. Thus, the family may not have a higher concentration of ownership, but they control the board of directors and so their identity and culture is present, as I expected.

The financial data collected allowed me to calculate the dependent variable and also some control variables to deal with firm's characteristics. The firm leverage is the firm total debt over the total assets; the firm growth is the annual growth of the total assets; the firm size is the natural logarithm of the firm's assets; the firm age is the number of years since its foundation until the year of analysis; the ROA is the firm's return on asset; the sales growth (S.G.) is the annual growth of the total sales; the MTBV is the firm market-to-book value; the risk is the standard deviation of the firm 12 months return.

Table 3 Summary Statistics

Panel A: Descriptive Statistics								
	Leverage	Growth	Size	Age	ROA	SG	MTBV	Risk
Mean	0.2998	0.1336	5.6174	12.3719	0.0129	0.1890	1.7208	0.0311
Median	0.2982	0.0453	5.5561	12.000	0.0174	0.0539	1.1500	0.0215
Max.	17.1195	7.6048	7.9970	25.000	0.6788	24.379	34.3400	0.3519
Min.	-0.5852	-0.9990	2.4314	1.0000	-1.1819	-0.9998	-96.1200	0.0000
Std. Dev.	0.6562	0.4446	1.0111	5.7460	0.1002	1.2014	4.7503	0.0344
Skew.	22.9634	8.2276	0.0943	-0.0208	-3.0900	15.7018	-10.5037	4.2289
Kurtosis	589.6051	118.1084	2.9808	2.3062	43.8760	286.1025	254.7670	28.1539
Panel B: Difference of the mean values								
	Leverage	Growth	Size	Age	ROA	SG	MTBV	Risk
Family	0.2906	0.1459	5.5761	12.820**	0.0212**	0.2220	1.6073	0.0303
Non-family	0.3097	0.1203	5.6625	11.8832	0.0039	0.1530	1.8447	0.0321
Panel C: Correlation Matrix								
	Leverage	Growth	Size	Age	ROA	SG	MTBV	Risk
Leverage	1							
Growth	-0.0902	1						
Size	0.0676	0.0551	1					
Age	-0.0232	-0.1922	-0.1165	1				
ROA	-0.0748	0.2242	0.0907	-0.0116	1			
SG	-0.0344	0.1265	-0.0873	-0.0562	0.0339	1		
MTBV	-0.0111	0.0748	0.0836	-0.1062	0.0136	0.0054	1	
Risk	-0.0258	-0.0432	-0.3208	0.2252	-0.1715	0.0177	-0.0899	1

Note: Panel A presents descriptive statistics, namely mean, maximum, minimum, standard deviation, skewness and kurtosis, for the variables include in the model: leverage is de total debt over the total assets, growth is the annual growth of the total assets, size is the natural logarithm of the firm's assets, age is the number of years since the firm foundation until the year of analysis, ROA is the firm's return on asset, sales growth is the annual growth of the total sales, MTBV is the firm market-to-book value, and risk is the standard deviation of twelve months return. Panel B present the mean values of these variables to family and non-family firms. Panel C reflects the correlation matrix for all these variables. *, **, *** indicate a difference in means between family and nonfamily firms at the 1%, 5% and 10% significance levels, respectively.

To identify market cycles I analyze the PSI20 return, following Dessender (2010). Periods of a negative stock market were considered as recession periods, whether periods of positive stock market were considered periods of expansion. I identified six crisis periods. The PSI20 dropped 11.20% during the year of 2000 due to the dot-com bubble burst. Latter, in 2001, it fell 26.5% as a consequence of the 9 September attack, and in 2002, 26.2% due to the corporate scandals. More recently, in 2008 the Lehman and Brothers collapse, followed by the Portuguese banks: Banco Português de Negócios and Banco Privado Português, caused a drop of 66.3% of the PSI20. In 2010 the Portuguese public deficit caused a fall of 8.9% in the PSI20, and, in 2011, 31.2% due to the contraction measures applied by the Toika organism. The expansion/recession periods are similar to those presented by Castro (2011b).

Once the dataset is described, I present the summary statistics of the study variables in Table 3. Panel A shows descriptive statistics: mean, maximum, minimum, standard deviation, skewness and kurtosis. Panel B show the mean value of the variables to family and non-family firms and the t-statistic of the difference of the mean test. Panel C shows the correlation coefficients.

The following facts emerge from Table 3. (1) In mean, the firms in the sample only finance 30% of their assets with debt. Results are similar to family and non-family firms, but the first group present, in average, less debt. (2) The firms included in the sample present, in average, positive assets and sales growth, ROA and MTBV. (3) In average, family firms are older and have higher return on assets than non-family firms. (4) None of the variables included in the models are highly correlated, at least not to a significant extent. (5) The correlation between leverage and the others variables present the expected signs, except the sales growth and firm risk. These facts suggest that firms need to look for external capital to finance its sales growth and the firm financial risk is not the major part of the firm risk.

5. Empirical Results

Table 4 presents results from the tests of the first model proposed: regression of the firm's leverage against a dummy variable which is one when the firm is family type and zero otherwise and additional control variables.

Table 4 Family Impact on Capital Structure

	Total Period			Recession Period			Expansion Period		
	Total	Family	Non-Family	Total	Family	Non-Family	Total	Family	Non-Family
C	0.1229	-0.1728 ***	0.5210	0.5879	-0.1569	1.3386 *	-0.2633 ***	-0.1653 *	-0.1739 **
D _{Fam}	-0.0016	-	-	-0.0758	-	-	0.0546 ***	-	-
Growth	-0.1225 **	0.0544 ***	-0.5168 ***	-0.2465 **	0.0673 **	-1.0191 ***	0.0515 **	0.0547 *	0.0220
Size	0.0456 *	0.0960 ***	-0.0094	-0.0164	0.0895 ***	-0.0912	0.0996 ***	0.0981 ***	0.0814 ***
Age	-0.0036	-0.0059 ***	-0.0023	-0.0051	-0.0051 **	-0.0154	-0.0030 *	-0.0067 ***	0.0016
ROA	-0.4195 *	-1.2561 ***	-0.0682	-0.0545	-1.4934 ***	0.0174	-0.7273 ***	-1.1833 ***	-0.4726 ***
S.G.	-0.0093	-0.0117 **	0.0411	-0.0240	-0.0162 *	0.0088	-0.0078	-0.0094	-0.0075
MTBV	-0.0020	-0.0005	-0.0009	0.0005	0.0050	-0.0020	-0.0022	-0.0028	-0.0020
Risk	-0.2244	0.8619 ***	-2.2800	-0.7191	0.8414 *	-2.9599	0.0660	0.8559 **	-1.1982 ***
Observations	734	383	351	326	168	158	408	215	193
Adj-R square	0.80%	39,93%	1,75%	0,31%	40,33%	3,38%	31,12%	38,47%	29,23%

Note: This table presents the estimates of leverage (total debt over total assets) on a dummy variable which equals to one when the firm is family type, and zero otherwise (D_{Fam}), and control variables: growth (annual growth of the total assets), size (natural logarithm of the firm's assets), age (number of years since the firm foundation until the year of analysis), ROA (firm's return on asset), sales growth (annual growth of the total sales), MTBV (firm market-to-book value), risk (standard deviation of twelve months return). Results are present to the total sample, Family Firms and Non-Family firms, and to the total period, recession period and expansion period. *, **, *** Significant at the 10%, 5% and 1% levels, respectively.

My first hypothesis is validated. During crisis family firms do not behave differently than non-family firms in terms of debt. In recession periods, all firms are financially constrained and have additional stress due to financial turbulences. Therefore firms avoid financial risk of increasing debt levels, independently of the type of shareholders. Similar conclusion where found by Anderson and Reeb (2003) when analyzing listed U.S firms, but ignoring the crisis effect, and to Lins et al. (2013) when analyzing 35 countries. In expansion periods results are different. Family firms present higher debt levels, contrary to my expectation. May be due to long term relationships with debt providers, family firms look for debt not only to invest in the firm and maximize its value but also to provide the family with socio-emotional wealth. These conclusions are consistent with the behavioral-agency theory of Gomez-Mejia et al. (2007).

Moreover the model estimated is more accurate to explain the family firms' leverage, and to periods of expansion. In recession periods there are macroeconomic factors that may influence more shareholders behavior in regards to capital structure than the firm's characteristics. There are some differences in regards to the control variables included to explain family and non-family firms' leverage. While to family firms the assets growth causes a positive impact on the debt ratio, to non-family firms I find the opposite relation. Family firms look for debt to finance the firm's expansion and increase the assets. In fact to grow firms need capital and internal capital is usually insufficient. As family firms are afraid to lose the firm control, the family prefers to look for debt than to increase equity and look for new investors. Non-family firms have the opposite reaction, they prefer to go to the stock market and look for new investors. This not only allows them to have access to funds with lower cost but also to acquire more prestige in the financial market.

The firm size and risk are relevant to positively explain the family firm leverage, but are insignificant in regards to non-family firms. Same conclusion is found to age, ROA and sales growth, but these variables have a negative impact in family firms' capital structure. Non-family firms' debt is influenced by different variables than that of family firms may be due to the singular characteristics of family firms which set them apart of non-family firms. To expand the firm's size, family firms need to invest in new and innovative projects and therefore need capital. As explained before, family firms prefer debt to own shares, so the firm size positively impacts the debt ratio. As the leverage increases, the financial risk also increases and thus the firm total risk is higher. Older family firms, with higher returns and sales growth have more self-financing and so do not need to look for debt to finance their business.

To better understand family firms, I analyze the family control impact on the firm's capital structure. To that end, I analyze the model 2 characterized by introducing a percentage of the family control: family ownership and F-PEC scale. Results are present in Table 5.

Analyzing table 5 I prove the validity of the second hypothesis: higher family ownership causes a negative impact in the firm leverage, especially in recession periods. When the family involvement in the firm increases, the family tends to present less debt. The family prefers to use internal financing to avoid agency problems with debt providers and the loss of control. This conclusion is similar with that of Fauzi et al. (2013). It is important to point out that family impacts on the firm leverage is only proved when I measure the family control using the family ownership. In regards to the F-PEC scale, the family control is statistically insignificant to explain the firm's leverage, may be because the afraid of losing control is related with family ownership instead of the family management. The significance of control variables are the same presented afore.

Table 5 Family Control Impact on Capital Structure

	Total Period		Recession Period		Expansion Period	
	F-PEC	%Own	F-PEC	%Own	F-PEC	%Own
C	-0.1520 **	-0.1542 **	-0.1309	-0.1292	-0.1482	-0.1511
%	-0.0224	-0.0008 **	-0.0277	-0.0011 **	-0.0187	-0.0006
Growth	0.0550 ***	0.0547 ***	0.0692 **	0.0712 ***	0.0543 *	0.0526
Size	0.0948 ***	0.0968 ***	0.0878 ***	0.0898 ***	0.0971 ***	0.0990 ***
Age	-0.0057 ***	-0.0053 ***	-0.0049 **	-0.0042 *	-0.0065 ***	-0.0063 ***
ROA	-1.2618 ***	-1.2910 ***	-1.5072 ***	-1.5741 ***	-1.1872 ***	-1.2061 ***
S.G.	-0.0115 **	-0.0110 **	-0.0153	-0.0135	-0.0095	-0.0095
MTBV	-0.0004	-0.0009	0.0053	0.0053	-0.0027	-0.0033
Risk	0.8401 ***	0.8313 ***	0.8084 *	0.7583 *	0.8429 **	0.8537 **
Observations	383	383	168	168	215	215
Adj-R square	39,86%	40,52%	40,08%	41,35%	38,23%	38,64%

Note: This table presents the estimates of leverage (total debt over total assets) on family control measured by the F-PEC scale and the percentage of the family ownership, and control variables: growth (annual growth of the total assets), size (natural logarithm of the firm's assets), age (number of years since the firm foundation until the year of analysis), ROA (firm's return on asset), sales growth (annual growth of the total sales), MTBV (firm market-to-book value), risk (standard deviation of twelve months return). Results are present to the total period, recession period and expansion period. *, **, *** Significant at the 10%, 5% and 1% levels, respectively.

6. Conclusions

Family firms are present all over the world playing a crucial role, not only because they generate wealth to economies but also because they create job. The singularities of family firms set them apart from non-family firms. Although few works attempt to understand the financing decisions of family public firms.

This study focuses on the analysis of family control impact on the firm's capital structure, including the market cycle effect. The aim of this work is to analyze family and non-family firms capital structure differences and if the percentage of family ownership and control influence the firm's debt level. Moreover, I analyze whether family and non-family firms react differently in recession and expansion periods.

The contribution of this study is three-fold. Firstly, I analyzed a small and unknown market as is the Portuguese one, almost unexplored in corporate governance and financial issues. Around one-half of PSI-20 and of all listed firms are family firms, which brings relevance to this study. Moreover, this small-scale market present some singularities compared to Anglo-Saxon and major European market, to which most studies have been carry out. Secondly, I not only use a dummy variable to analyse the differences between family and non-family firms, but I also used two alternative variables to measure the family control: the family ownership and the F-PEC scale. This allows me to detect if the type of family control has impact on financial sources selected. Third, I introduce the market cycle effect. I analyze whether family and non-family firms behave differently in expansion and turbulent periods. The security of the Portuguese financial system was questioned in 2010, and consequently the country looked for 'Troika's' help to solve its financial problems. Likewise, analyzing the impact of financial crisis in the firm's leverage and understand which firms use more debt in recession and expansion periods is an important issue.

Our overall results show that market cycles does matter to explain the family impact on the firm capital structure. In expansion periods family firms present higher leverage than non-family firms. This fact suggests that the family may look for debt to invest more and to, not only maximize the firm value, but also acquire reputation and other benefits to the family. During recession periods, family and non-family firms present similar debt levels. The additional stress resulting from the crisis limits the investment and the financial decisions of both types of firms in order to sustain their presence in the market. Although the reasons that explain why the family and non-family firms look for debt are different, confirming the singular characteristics of each type of firm. Family firms with a large size, more risk, young, with less return and sales growth need to look for debt to make new investments and sustain the firm presence in the market. Regarding family firms, higher concentration of family ownership leads to lower debt levels, especially in recession periods. When the family personal risk is more intrinsic to the firm risk, the family may have more conservative behavior in order to avoid risk and sustain the firm's presence for future generations.

These findings corroborate the results of Schmid (2012), Fauzi et al. (2013) and Lins et al. (2013), and also support the behavioral agency theory. In recession periods, when family ownership is more concentrate, the family avoids risk to assure the firm survival. Although, in expansion periods, the family may look for debt also to accomplish some personal socio-emotional wealth as status, reputation, higher salaries, among others.

Results are especially relevant not only for institutional and individual investors in a national and international context but also for academics and the professional managers of these companies. Investors may recognize why firms look for debt to finance their assets and its impact in the firm's risk level. Academics have a study of capital structure of a new country, and with new variables and a new and relevant effect: market cycle, which can explain why previous results are mixed and inconclusive. Finally, professional manager, especially the ones of family firms may understand that looking for debt brings also advantages to firms and not only limitations as agency costs and loss of control.

References:

- Anderson R., Mansi S. and Reeb D. (2003). "Founding family ownership and the agency cost of debt", *Journal of Financial Economics*, Vol. 68, pp. 263-285.
- Anderson R., and Reeb D. (2003). "Founding-family ownership, corporate diversification, and firm leverage", *Journal of Law and Economics*, Vol. 46, pp. 653-684.
- Arellano M. and Bond S. (1991). "Some tests of specification for panel data: Monte carlo evidence and an application to employment equations", *The Review of Economic Studies*, Vol. 58, No. 2, pp. 277-297.
- Bhandari L. (1988). "Debt/equity ratio and expected common stock returns: Empirical evidence", *Journal of Finance*, Vol. 43, pp. 507-528.
- Berle A. and Means G. (1932). *The Modern Corporation and Private Property*, Hancourt, Brace & World, Inc. Copyright, New York (Republished 1968).
- Bengoechea P. and Perez-Quirós G. (2004). "A useful tool to identify recessions in the Euro-area", *Banco de Espana*, Working paper 0419.
- Castro V. (2011a). "The Portuguese business cycle: Chronology and duration dependence", *NIPE Working Paper*, 11/2011, pp. 1-34.
- Castro V. (2011b). "The Portuguese stock market cycle: Chronology and duration dependence", *NIPE Working Paper*, 13/2011, pp. 1-17.
- Croci E., Doukas J. and Gonenc H. (2011). "Family control and financing decisions", *European Financial Management*, Vol. 17, No. 5, pp. 860-897.
- De Angelo H. and Masulis R. (1980). "Optimal capital structure under corporate and personal taxation", *Journal of Financial Economics*, Vol. 8, No. 1, pp. 3-29.
- Desender K. (2010). "Ownership structure and stock price performance during turbulent financial markets", *AAA 2009 Financial*

Accounting & Reporting Section (FARS) Meeting.

- Faccio M. and Lang L. (2002). "The ultimate ownership of Western European corporations", *Journal of Financial Economics*, Vol. 65, pp. 365-395.
- Fauzi F., Basyith A. and Idris M. (2013). "The determinants of capital structure: An empirical study of New Zealand-listed firms", *Asian Journal of Finance & Accounting*, Vol. 5, No. 2, pp. 1-21.
- Gomez-Mejia L., Haynes K., Nuñez-Nickel M., Jacobson K. and Moyano-Fuentes J. (2007). "Socioemotional wealth and business risks in family-controlled firms: Evidence from Spanish olive oil mills", *Administrative Science Quarterly*, Vol. 52, pp. 106-137.
- Jensen M. (1986). "Agency costs of free cash flow corporate finance and takeovers", *American Economic Review*, Vol. 76, No. 2, 323-329.
- Jensen M. and Meckling W. (1976). "Theory of the firm: managerial behavior, agency cost and ownership structure", *Journal of Financial Economics*, Vol. 3, pp. 305-360.
- Joh S. (2003). "Corporate governance and firm profitability: Evidence from Korea before the economic crisis". *Journal of Financial Economics*, Vol. 68, pp. 287-322.
- King M. and Santor E. (2008). "Family values: Ownership structure performance and capital structure of Canadian firms", *Journal of Banking and Finance*, Vol. 32, No. 11, pp. 2423-2432.
- Klein S. (2000). "Family business in Germany: Significance and structure", *Family Business Review*, Vol. 13, No. 3, pp. 157-181.
- La Porta R., Lopez-de-Silanes F. and Shleifer A. (1999). "Corporate ownership around the world", *Journal of Finance*, Vol. 54, pp. 471-517.
- Lins K., Volpin P. and Wagner H. (2013). "Does family control matter? International evidence from the 2008-2009 financial crisis", *Review of Financial Studies*, Vol. 26, No. 10, pp. 2583-2619.
- Mackinlay A. and Richardson M. (1991). "Using generalized method of moments to test mean-variance efficiency", *Journal of Finance*, Vol. 46, pp. 511-527.
- Margaritis D. and Psillaki M. (2010). "Capital structure, equity ownership and firm performance", *Journal of Banking and Finance*, Vol. 34, No. 3, pp. 621-632.
- Martin-Reyna J. and Duran-Encalada J. (2012). "The relationship among family business, corporate governance and firm performance: Evidence from the Mexican stock exchange", *Journal of Family Business Strategy*, Vol. 3, pp. 106-117.
- Miller D., Breton-Miller I., Lester R. and Cannella Jr A. (2007). "Are family firms really superior performers?", *Journal of Corporate Finance*, Vol. 13, pp. 829-858.
- Modigliani F. and Miller M. (1958). "The cost of capital, corporation finance and the theory of investment", *American Economic Review*, Vol. 48, No. 3, pp. 261-297.
- Modigliani F. and Miller M. (1963). "Corporate income taxes and the cost of capital: A correction", *American Economic Review*, Vol. 53, pp. 433-443.
- Myers S. (1984). "The capital structure puzzle", *Journal of Finance*, Vol. 39, No. 3, pp. 575-592.
- Myers S. and Majluf N. (1984). "Corporate financing and investment decision when firms have information that investors do not have", *Journal of Financial Economics*, Vol. 13, No. 2, pp. 187-221.
- Nazlioglu B., Sendurur U., Yanik S. and Özerhan Y. (2012). "The effect of ownership structure on stock prices during crisis periods: A study on ISE 100 index", *International Journal of Business and Social Science*, Vol. 3, No. 6, pp. 82-88.
- Pindado J., Requejo I. and de la Torre C. (2008). "Does family ownership impact positively on firm value? Empirical evidence from Western Europe", *XVI Finance Forum* (Barcelona, Spain).
- Pindado J., Requejo I. and de la Torre C. (2011). "Family control and investment-cash flow sensitivity: Empirical evidence from the Euro zone", *Journal of Corporate Finance*, Vol. 17, No. 5, pp. 1389-1409.
- Schmid T. (2012). "Control considerations, creditor monitoring, and the capital structure of family firms", *Journal of Banking and Finance*, Vol. 37, No. 2, pp. 257-262.
- Schulze W., Lubatkin M. and Dino R. (2003). "Exploring the agency consequences of ownership dispersion among the directors of private family firms", *Academy of Management Journal*, Vol. 46, pp. 179-194.
- Schulze W., Lubatkin M., Dino R. and Buchholtz A. (2001). "Agency relationships in family firms: Theory and evidence", *Organization Science*, Vol. 12, pp. 99-116.
- Villalonga B. and Amit R. (2006). "How do family ownership, control, and management affect firm value?", *Journal of Financial Economics*, Vol. 80, pp. 385-417.

Reflections of the Economic Policies Adopted by Industrial Countries in the Aftermath of the 2008 Global Financial Crisis on Turkey*

İbrahim Erol

(Celal Bayar University, Manisa, Turkey)

Abstract: The purpose of this study is to analyze the monetary and exchange rate policies adopted by industrial countries in the post-2008/9 global financial crisis and to question whether any steps to eliminate the effects of the crisis were taken as well as to discuss the possibility of a potential currency war to arise in-between the countries. By reason of these evaluations, the monetary and exchange rate policies exercised in a selected sample of industrial countries and the probable subsequent effects of them on Turkey will be briefly explained.

Key words: financial crisis; currency wars; monetary policy; exchange rate policy

JEL codes: E31, E42, F62, G01

1. Introduction

The basic research question raised by this study concerns the following two forms of economic policies implemented in industrial countries, namely the exchange rate-based monetary policy and the fiscal policy. In addition to that, the financial market reforms of the post-global crisis era are scrutinized. Looking further back from now, daily economic routine seems to have continued as if no financial crisis of any sort has ever been experienced. The stock values in the stock market appreciated and the interest rates in financial markets showed an upward tendency. There being no virtual consideration of and lessons drawn from the previous crisis, risky financial products were reintroduced into the market and the profit margins of the Investment Banks re-took a booming turn.

The question atop the economic agenda is whether the effects and impacts of the 2008 crisis were totally eradicated and precautions to hinder a revival were taken or whether an economic downfall is likely in case of a new crisis. In many a country including the developed countries unemployment rates still continue high and capacity utilisation rates within manufacturing industry remain constant. Public sector deficit is also soaring.

This paper questions whether any radical switch of policy was undertaken in terms of monetary and exchange rate policies implemented in industrial countries within the post-2008 global financial crisis period; explores whether the financial reforms to eliminate the effects of a prospective crisis were initiated, and finally discusses the potential influence of those variables on Turkish economy.

In post-2008 global financial crisis period, the monetary and exchange rate policies of the industrial countries

* This paper has been presented at the Anadolu International Conference in Economics-ECON ANADOLU'2013 held in Eskişehir/TURKEY, June 19-21, 2013.

İbrahim Erol, Dr., Professor, Faculty of Economics and Administrative Sciences, Department of Economics, Celal Bayar University; research areas/interests: economics. E-mail: ibrahim.erol@cbu.edu.tr.

did not undergo transformative changes. In each of the countries, monetary policy did not suffice by itself to escape a period of depression, which necessitated the collaboration of fiscal policy. As a consequence of this double helix economic recovery program, a hope and an expectation among economists appeared towards the possibility of applying New Keynesian school thoughts alongside those of the Neo-Classical school of thought or a return back to the Keynesian School. However, the prevalent economic policy within the industrial countries is oriented more towards the Neo-Classical school of thought and the belief in the resolving capacity of the monetary policy in terms of economic problems looms larger (Brady, 2012).

On the other hand, at a period when the effects of the financial crisis in international markets have not yet been dispelled and when countries debate how to resolve their own economic problems, the argument that cross border currency wars could re-emerge is a hot discussion topic in economic literature.

On September 27, 2010 in the city of Sao Paulo at a conference meeting concerning the effects of exchange rate policies on business problems, Brazilian Finance Minister Guido Mantega claimed that the world is in the midst of a currency war and this thorny conflict suppresses the competitiveness of the Brazilian economy, whereby the term “currency war” was coined (Financial Times, FT.27.09.2010).

The key point here is the question of whether a currency war will break out in the middle of a real global crisis.

Another problem at hand is the high debt-to-GDP ratios of industrial countries, particularly in Europe. This case is especially urgent in Eurozone countries. At the core of the debt problems lies the structure of the Euro currency and cross border differences in terms of development. A high debt-to-GDP ratio is perceived as an indicator of economic crisis.

2. Monetary and Exchange Rate Policies

In the background of the assertive statement “*we’re in the midst of an international currency war*” by the Brazilian Finance Minister stands the appreciation of the Brazilian national currency “Real”. There is a widespread consensus and unanimity among researchers that Brazilian Real appreciated immoderately. However, as in Colombia, Thailand and many other industrial countries including Japan, an excessive appreciation in the value of a currency creates problems (Klein & Teng, 2010, p. 3).

Additionally, the low interest rate policy and the increasing liquidity exports in the US accelerated the flow of capital towards other countries. Capital flows led to an accrual of foreign exchange in the exchange market of many countries, thereby appreciating the national currency, which resulted in cheaper imports and larger current account deficits. Mantega regarded the industrial countries as the sole responsible of this cycle and emphasized that it was on purpose and a conscious design that the Brazilian Real appreciated excessively.

Following these explanations, the internationally debated question is whether the world trade will be subject to a danger of breakdown via devaluations perpetuated by currency wars, as was experienced during the 1930s. Subsequent to these debates, the US, Republic of China, and other Asian and Pacific countries convened to bring up a resolution as a countermeasure to the policies augmenting competitiveness by way of exchange rate manipulations (Dullien, 2012, p. 2).

Despite the aforementioned resolution, the debates persist and the concern over a currency war in the case of a crisis and at a critical juncture remains on the agenda. Hereof, the monetary and exchange rate policies of China, the US and the Euro zone countries will be analyzed.

2.1 The Frame of the Republic of China

The Republic of China is faced with two significant problems; the first is inflation, and the second is the pressure to revalue the national currency.

Since the 2008 global financial crisis, China put in circulation \$586 billion, an amount equal to approximately 16% of its GDP as of 2007 to abate the effects of the crisis by means of expansionary monetary and fiscal policies. This in turn led to a drastic monetary and credit expansion in the Chinese market. China alone expanded its M2 money supply by 28% in 2009 and increased its credit volume by 100% as compared to 2008. The increasing money supply in circulation caused an equivalent escalation in inflation. Although the official statistics of the year 2010 display a 3% rate of inflation, real inflation rate is more than twice that number. The estimations for the real inflation rate are centred on 7% (Klein & Teng, 2010, p. 4).

Just in 2010, the discount rates soared by 0.5% for five times and by 15% in total and the benchmark interest rate hit a 6%.

From 2005 onward, China fixed its currency onto the US dollar within the frame of pegged exchange rate system. Whereupon, a period of “managed floating” based on supply and demand in the foreign exchange market ensued, which favoured not only the accumulation of the US dollar but the creation of a currency basket in a way to protect the national currency. With the appreciation of the Chinese currency Renminbi (RMB) by 20% before the 2008 financial crisis and the eruption thereof ended the reform policies and RMB was re-fixed to the US dollar.

A cheaper exchange rate policy, i.e., deliberately keeping the value of a currency comparatively low, gained Chinese economy an edge by boosting the exports and paving the way for current account surplus.

From the perspectives of the US and the Europe, Chinese exchange rate policies triggered trade imbalances to the detriment of other countries.

As a consequence of the pressures coerced by western countries, China appreciated the value of RMB somewhat but refrained from undertaking the required and market-proper arrangements.

2.2 The Frames of Europe and the USA

The primary tasks of the European Central Bank are to manage the monetary policy with respect to the domestic market conditions, and to implement policies aimed at sustaining monetary stability of the Euro as well as ensuring favourable market conditions for the European Banks to effectively operate.

The European economy divided into two fractions following the global financial crisis. Whereas the economies of some countries worsened, in some others like Germany the economy kept its vitality. As an extension of this, some Euro zone banks experienced great capital challenges on the one hand and on the other they became more dependent on the European Central Bank. Indeed, the European Central Bank aims at monetary stability, but the exchange rate policy is, rather than being the target of the European Central Bank, strongly correlated with the market expectations based on supply and demand (Burgstaller & Feigl et al., 2010, p. 49).

The optimistic expectations in Euro zone countries or the pessimistic expectations in the US consolidate the Euro currency by improving the investment environment and attracting capital flows from the overseas markets. The pessimistic expectations in the Euro zone weaken the Euro currency by prompting capital outflows towards the US. The US monetary policy is oriented towards preventing domestic unemployment. The US recovery packages introduced in the aftermath of the global financial crisis could not reduce unemployment and the monetary policy forestalled the fiscal policy once again.

The rebirth of the Keynesian thought was being celebrated until two years ago, but it is widely accepted to have died by now. This is because an expansionary fiscal policy aiming to escape conjunctural bottlenecks is not

effective anymore and the attempts to raise employment do not yield any success. In this context, there has been a turning back to monetary policy with an expectation to harvest better crops (Hagemann, Kramer, 2011, p. 476).

As is already known, FED transferred \$600 billion to the American economy within the frame of Quantitative Easing by way of buying treasury bonds in the capital markets to provide for liquidity demands, an act that led to a higher inflation rate (Federal Reserve Bank St Louis, 2011).

The export of large volumes of liquidity reserves by the US weaken the dollar currency and harm the trading partners. However, that kind of liquidity reserve exports are considered to be a means of American monetary policy and viewed as standard conduct. The following quote from the former American Treasury Secretary is quite noteworthy in that sense; *“Dollar is our currency but your problem”*.

3. Currency Wars

Recent rumours on currency wars are focused more on a possible cross border competitive devaluation, and trade wars or exchange rate manipulations. The most significant among those possibilities is the incidence of a cross border competitive devaluation.

In the classical sense of the word, currency wars denote the competitive devaluation among countries. As a result of devaluation, countries gain competitive advantage against the trading partners of the other country by means of their currency. But, if each country behaves that way, not any one of them will benefit from this strategy. As each country moves towards devaluation to their best interests, the aggregate utility will amount to zero.

Two conspicuous problems arise at that point: first is the accumulation of foreign exchange reserves in the emerging economies and the second is the current account imbalances to appear in some countries.

In Table I is a list of foreign exchange reserves of some selected countries in three discontinuous years, 1995, 2009, and 2012. Taken all together in the aggregate, the total exchange reserves of the People’s Republic of China, Taiwan, Hong Kong, and Macau sum up to approximately 3.3 trillion US dollars. Chinese foreign exchange reserves climbed up to \$307.5 billion in 2009 from \$228 billion back in 1995 and this number remained at a level of \$301.20 billion by 2012. The reason for this increase in foreign exchange reserves of China is the steadily low value of the Chinese Renminbi in the face of the US Dollar and the PRC constantly purchasing US dollars in the foreign exchange markets to protect the national currency and inflating the dollar reserves. Among the leading countries boosting their foreign exchange reserves are Japan, Switzerland, Brazil, France, and Turkey.

Table 1 Foreign Exchange Reserves of Some Key Countries

Countries	1995 FX Reserves Billion US Dollars	2009 FX Reserves Billion US Dollars	2012 FX Reserves Billion US Dollars
China	228	307.5	301.20*
Japan	193	104.9	1.272
USA	175	404	153.80
Germany	122	180	262
Singapore	69	188	191
Switzerland	69	135.3	525.0
Italy	61	132	190.30
Fransa	59	133	183.60
Brazil	51	239	378.70
England	49	404	132.70
Turkey	50	75.0	112.10

Note: *China+Hong Kong

Source: The World Bank, World Development Indicators (WDI) Welt auf einen Blick, Wirtschaft, Währungsreserven und Goldreserven, Statistika 2013-03-01.

The goal of the countries in boosting their foreign exchange reserves is not to receive a larger share from the world trade by manipulating the exchange rate of their currency but rather to protect and if need be, support the value of their currency in case of a global crisis.

There are two possibilities for the emergence of an international currency war (Mathes et al., 2013, pp. 3-28). According to the first scenario, the US will trigger the onset of a currency war and not one single country will be able to resist the doom. It should be noted here that the dollar reserves in other countries impose a pecuniary obligation on the US, namely those dollar reserves are the Federal debts. Based on this rationale, an increase in money supply by the US in a way to prompt dollar inflation might seem like an appealing policy. This is because the worldwide dollar reserves depreciate in real terms and the US gets rid of its debt.

If ever the world countries perceive the US intentions as malicious, they might be tempted to replace the dollar reserves with other foreign exchanges in a way to protect the exchange rate of their currency. In this case, the value of the dollar in international foreign exchange markets will rapidly depreciate. This scenario does not seem very likely however. This is because the US already has every opportunity to borrow with his own foreign exchange reserves and the rate of interest to this borrowing is relatively low. It is also known that the real rate of return for creditors is negative.

It is possible to get rid of debt through inflation. However, balancing the possibility of getting rid of debt through inflation against the long-term reliability of the dollar, the US could hardly afford to lose its worldwide dollar reserve status.

On the other hand, the US will be deprived of the **seignior age** income to flow from around the world. The US should not be expected to engage in practices contrary to his own interests in economic terms, from a position to cover the current account deficit by himself. For these reasons, this scenario does not seem rational.

A second scenario is about the Chinese government putting her dollar reserves, previously accumulated in order to weaken and gain some power against the dollar, on the foreign exchange markets. In this scenario, China will be the perpetrator of the crisis. However the Chinese government will be damaged by this act. Because, this selling of the dollar reserves on the international foreign exchange markets by China will depreciate the dollar and thus reduce the value of the foreign exchange reserve in her own safety box. The depreciated dollar will strengthen the competitiveness of the US, and via an additional foreign trade advantage the US will be better able to meet the balance of payments.

In case the US dollars put on the market by China will lead to dollar inflation, the Federal Reserve Bank could collect those dollars by using various monetary policy tools and thus provide price stability. This is due to the fact that the dollar reserves held by the Chinese government are smaller than the US GDP and this does not present a problem for the US. From the perspective of China, this kind of a foreign exchange policy does not seem reasonable and it is likely to do more harm than good for the Chinese economy.

If China pegs her currency to the US Dollar within the frame of fixed exchange rate system, she will either ignore the US (i.e., benign neglect) as if she has no foreign exchange policy or significantly increase the dollar amount in order to depreciate the exchange rate of her currency.

As long as China pegs her national currency Renminbi to the US Dollar within the frame of fixed exchange rate system, the US will challenge the Chinese economy via his expansionary monetary policy. In fact, the US with his current exchange rate policy forces the Chinese government to adopt a floating exchange rate policy. By adopting a floating exchange rate policy, China will lose her contribution to the US external balance.

Analyzing the possible exchange rate developments between Eurozone countries and the US, provided that

the US follows expansionary monetary policy in the short run, a capital flow from the US to the Eurozone will begin and the Dollar will depreciate in the face of the Euro. This will increase the competitiveness of the US against the Euro countries. Under the circumstances, the US balance of payments will recover whereas those of the Euro countries will deteriorate. However, such a recovery is likely only in the short run. In the long run, the liquidity expansion may trigger a rise in inflation, placing the inflation problem back on the US agenda. This may reverse the positive contribution via the liquidity expansion to the external balance. Higher interest rates will encourage capital inflows and the rising commodity prices will eliminate the profit margin previously gained by competitive advantage.

If a country will use the foreign exchange rate as a strategic weapon, expansionary monetary policy will provide an advantage in the short run, whereas in the long run it will be disadvantageous due to a threat of inflation. A monetary policy oriented towards long-term price stability is always advantageous. Such kind of a policy will strengthen the price mechanism and enhance the competitiveness of the industrial sector as well contributing to the recovery of the external balance.

In assessment, the US wishes to stimulate his economy by way of liquidity expansion and prefers monetary policy, knowing that fiscal policy will be of no avail to that end. The purpose here is to balance the US public deficit as much as possible.

From now on, the European Central Bank will no longer feel imprisoned under the burden of high levels of debt and will not pursue a loose monetary policy in terms of exchange rate policy and conservation of the price stability will be the top priority (Weber, 2011:9).

Due to the liquidity expansion in Europe and the US, the cheap dollar inflows to China will continue, and the pressure of revaluation on Renminbi will mount, and the fight against inflation will accelerate as long as the Chinese Renminbi is pegged to the US Dollar. The only way for China to escape this cycle is to abandon the fixed exchange rate policy.

In case China wishes to configure her national currency as an international reserve currency, she should apply a monetary policy oriented towards price stability, and liberalize the financial system and cease controlling the capital movements in a one-way direction to serve her interests. If these policies are enacted, Renminbi will become the third largest reserve currency of the world.

Developing countries has always sought to increase their competitiveness by following a weak exchange rate policy, thereby soaring their exports.

However, due to the cheap capital flows from the US and Europe in the post-2008 financial crisis period, the exchange rates of the developing countries have been subject to a revaluation pressure.

In view of the circumstances, these countries will either purchase foreign currency by intervening in their own foreign exchange markets or resort to international capital controls.

The exchange rate movements in developing countries or the currency wars will be left behind and will not cause a worldwide exchange rate crisis.

4. Financial Market Reforms

After the 2008 global financial crisis, two views confronted each other in terms of economic policies. According to the first view, the root of the financial crisis is nested in the employment of incorrect monetary and fiscal policies. In other words, the crisis is the systemic crisis of the economic policies.

The second view is based on the allegation that the global financial crisis stems from the structure of capital markets wherein a lack of control and supervision and absence of necessary legal arrangements pervade. Our analysis is on this latter view.

After the global crisis and in various meetings, the G20 reached a consensus on taking measures to eliminate global imbalances and providing supervision and control over the financial sector (Dullien, 2012, p. 1). What is significant here is that the decisions taken are aimed at increasing the efficacy of economic policies and prevention of the emergence of a new crisis in the future.

The G20 resolutions are mainly centred on three core areas:

- (1) Eliminating financial imbalances, i.e. ensuring a stable and balanced growth,
- (2) Supervising and controlling the practices of banks and other financial institutions that may lead to a crisis in the financial markets,
- (3) Carrying out the necessary reforms that will accompany the financial markets well into the 21st century and contributing to the economic development.

No steps have been taken so far regarding the first resolution on elimination of global imbalances. Industrial countries have not yet collaborated on designation of appropriate fiscal and monetary policies to reach strong, stable and balanced economic growth figures and improve cross border cooperation. That is why the Current Account Balance in Germany for example, record a surplus whereas many other industrial countries still run a deficit. The US current account deficit in the post-crisis period decreased to a certain extent. Yet, there is still a deficit of approximately 3% of the GDP. Chinese current account surplus as of 2007 was an excess of 11% of the GDP whereas it fell to 8% and 5% in 2008 and 2011 respectively. This is due to the weakening of the US economy after the crisis and the low level of capital inflows to China from 2008 onwards.

According to the International Monetary Fund (IMF) estimates, the US current account deficit will rise again from 2012 on (IMF:2011- b).

The current account surplus particularly in China and Germany creates an imbalance among other countries in the global process. The reciprocal promises to eliminate cross border current account imbalances ended in failure. However, the European countries have made a contract by the name of “Europe six-pack” to eliminate the current account imbalances among themselves. The purpose here is to investigate the foreign trade imbalances and to take the imbalance-corrective measures. According to this principle, the current account surplus countries will limit their excess amount of balance to a maximum of 6% of their GDP. On the other hand, the current account deficit countries will limit their deficit amount of balance to a maximum of 4% of their GDP (Bundesministerium für Wirtschaft und Technologie, 2012).

As for the elimination of current account imbalances of the countries and adoption of measures to accelerate investments in balance deficit countries, and the statements issued by G20 countries in the post-crisis period, no initiatives have yet been undertaken.

Generally speaking, financial market reforms were prioritized in this period and the most crucial attempt in that sense has been the regulation of bank capital requirements. The regulation of bank capital requirements after the 2008 financial crisis has involved the most intriguing and comprehensive structural change and they have been dubbed the Basel III financial regulatory reforms.

4.1 Basel III Financial Reforms

The financial system rules following the 2008-2009 global financial crises were arranged under the title “Basel III”.

Transferring those rules into the field of application however, will take a long time. Basel III reforms, originally prepared for the EU have also been adopted by the US Federal Reserve Bank and the FED declared that the US banks will also comply with these rules (Whyat, 2011).

Although the Basel III reforms are highly complicated, it is possible to outline the basic premises (Deutsche Bundes Bank, 2011).

(1) *Improving the quality of banks' common equity capital*: Within the frame of new rules, a new and stringent outline based on common equity capital is drawn with a focus on stronger common equity capital formation. The previously designated hybrid-capital is no longer accepted as strong common equity capital.

(2) *Creation of an additional buffer zone*: A "capital conservation buffer" or "countercyclical buffer ratio" will be formed to protect the capital in the future. Capital conservation ratio is composed of the 2% of the risk-weighted assets in a bank's balance sheet. In case banks fall into the buffer range and cannot meet capital requirements, constraint on their discretionary distributions will be imposed. In case the credit growth of the national banks pose a threat and the weight of the threat exceeds the limit of 2.5% of the risk-weighted assets, countercyclical buffer ratio will be carefully monitored by the national supervisory authorities.

(3) *Increasing the quantitative capital requirements*: The up-to-now 2.5% level of risk-weighted assets of the banks must be deposited at a level of 4.5% of risk-weighted assets as hard core capital from 2015 onwards. In addition, to protect the risk-weighted assets the capital conservation ratio of 2% will be raised to 7% by 2019.

(4) The equity capital conservation ratios of the banks that may change based on cyclical developments may increase up to 13% by 2019 (Bundes Bank, 2011). The goal here is ensuring stability in financial sector and strengthening the bank equity capitals against economic crisis.

4.2 "Financial Institutions" with Key Roles in the System

Structural regulations in systemically important financial institutions have just begun. To that end, international agreements on the general requirements have been reached and the provisions of these agreements have been transferred by the Financial Stability Board to the field of application (FSB, 2011).

In 2011 using various methods, 29 systemically important financial institutions (G-SIFIS) were identified on a global scale. Based on size and distribution of risk networks, these institutions should allocate equity capitals at a ratio of 3.5% of their risk-weighted assets as risk premium. Additional equity capital requirements are expected to be enforced from 2016 to 2019.

4.3 Hedge Funds

After the global financial crisis, the hedge funds in both the EU countries and the US have been subject to very strict rules and regulations. Hedge funds were bound by restrictions. "Alternative Investment Funds Managers Directive" was established in the EU and "Dodd-Frank Act" was legislated in the US. Besides these institutions, establishment of a control center on derivatives and derivative markets in the future and placement of restrictions on Hedge Fund participation by Commercial Banks have been settled upon (Dullien, 2012, p. 10).

Fund suppliers in the EU have to specify the details regarding the origin of those funds, the minimum requirements for liquid capital as well as the equipment of sufficient and qualified personnel. Also, professional investors must inform their national agencies on issues such as the securities management, the supply amount reached of the securities, investment strategies and risk management.

In the US, highly stringent control mechanisms on Hedge Funds have been created and following the 2008 global financial crisis all the decisions settled by G20 countries in this field have been enforced.

4.4 Securities Market

The reforms in this area could be more quickly implemented. In 2009, the EU established the “Capital Requirements Directive II” within the frame of capital adjustment regulation on securitization. According to this regulation, the securities lenders have to keep a 5% of credit in their safety vault or show an amount commensurable to that in their balance sheet.

The US regulations in this field are based on Dodd-Frank Act. Bank Audit Committees stipulate the securities lending bank to hold a 5% of the credit risk in securitization.

Supervision and auditing of swaps and other similar transactions are carried out by Commodity Futures Trading Commission. In both the EU Commission and the US securitized products have been under supervision and subject to auditing since 2008 (Dullien, 2012, p. 11).

The attempts for reform in financial sector in the post-2008 global financial crisis era could be summarized as follows:

Table 2 The Reform Efforts in Post-crisis Financial Sector

The Predicted Reform Efforts	The USA	The EU
Current Account Imbalances in terms of Eliminating Global Imbalances	No measures taken	Limited measures taken
Financial Auditing Structure	Necessary measures taken	Necessary measures taken
Capital Requirements	Effort are underway	Effort are underway
Hedge Funds	Necessary measures taken	Necessary measures taken
Securitization	Necessary measures taken	Necessary measures taken
Financial Stability Committees	Established	Established
IMF Resources	Increased	Increased

Source: Dullien S. (2012), Anspruch und Wirklichkeit der Finanzmarktreform: Welche G20-Versprechen wurden umgesetzt? Study, IMK 26, März

Considering the reform efforts described in Table II, international financial reform efforts led by G20 countries seem to be successful. However, there is a problem here: Could a globally strong, stable and balanced economic growth be secured in the near future with the measures taken in order to control and direct the international financial sector led by G20 countries, or will there be some other crises similar to 2008/2009 global financial crisis?

Two opposing streams of thought exist on this issue (Weber, 2011, pp. 3-5). Some economists believe that the origins of the financial crisis rest in only the financial system and they argue that the crises are the results of mistakes made in the financial system. The crisis is presumed to have emerged from low capital requirements and erroneous incentives of the financial system. Therefore, it is expected that no crisis will ever be experienced again provided that the problems of the financial sector are resolved and the necessary supervision is carried out.

In this context the most prominent causes of the global financial crisis are the high levels of capital requirements that whet the banks’ appetite in the financial market, the ventures of the banks into very risky investments, the possibility of making unlimited profits in the market, presence of highly reliable large-scale institutions investing in the market, and the belief that in case of the business facing setback the government will implement a bailout plan.

A number of other economists emphasized another aspect of the crisis and claimed that in addition to the global financial crisis wrong macroeconomic practices led to a crisis (Busch et al., 2012, p. 8). The liberalization of labor markets since the 1970s disrupted the income distribution in many industrial countries and led to

polarizations. Income distribution in the industrial countries improved very slowly and displayed an ill-balanced structure. Therefore an increase in income due to the adequate growth of demand could not be procured. In order to eliminate the unemployment resulting from all those developments, central banks and financial institutions in many countries connived to the ferocious growth in financial innovations and the credit expansion in the housing sector. The expectation here was to achieve a demand growth in economies with additional credits, but it did not actualize.

This situation engendered over-borrowing in the US households as well as the over-inflation of the housing prices and the final demand was triggered via credits in countries such as the US, England and Spain. Germany and Japan confronted this development more cautiously.

Following the introduction of many innovations in the financial markets, potentially high-profit yielding speculative activities of the capital markets came into prominence instead of the lendings to the real sector.

5. Reflections of Economic Policies Adopted in Developed Countries on Turkey

The reflections of the economic policies adopted by the industrial countries in post-2008/2009 financial crisis era on Turkish economy manifest themselves in three spheres:

(1) Financial markets and capital outflows

(2) Demand contraction for the export of Turkish goods and services due to the monetary and fiscal policies adopted in industrial countries

(3) Exchange rate policies of the industrial countries

2008/2009 financial crisis affected all the countries over the world especially through the channel of strong financial interactions reined by the US. The elapsing time period revealed that the developing countries such as Turkey were less affected by the crisis in comparison to the advanced industrial countries.

The US prioritize the expansionary monetary policy and the FED has taken a decision to keep the interest rates within the 0%-2.5% corridor until 2015. They also support the housing sector by depreciating the long-term interest rates.

The US GDP increased by 2.1% in 2012. The average growth rate for 2013 is estimated at 1.7%. Besides, the inflation rate for 2012 realized at 2.1% and it is expected to be 1.8% for 2013 (İfo İnstitut, 2013, p. 10).

Under the circumstances, the absence of any change in the expansionary monetary policy of the US in the short-term and the secondariness of the fiscal policy in the medium-term eliminate the possibility of a recurrence of liquidity abundance in the near future.

In this case, an overvalued exchange rate policy in Turkey, i.e. the overvaluation of the Turkish Lira as was experienced before will end and a more realistic exchange rate policy will emerge. However, the attraction of the imports will continue and the growth of imports will expand the current account deficit. It will be compulsory to embrace a production-aided industrial policy.

The US and the G20 countries have engaged in comprehensive reform movements in order to control the capital flows in their financial markets and exert supervisory control over their banks. In parallel, Turkey has to restructure her own supervision and control mechanisms within the capital markets. It is a must for a balanced and stable growth that Turkey apply capital controls to avoid the destructive effects of speculative international capital movements in the future.

After the crisis, international credit channels contracted, flow of funds were disrupted and local banks and

companies suffered hardships in recruiting external financing (Kibritçioğlu, 2010). With the reinstatement of economic stability on a global scale, it is possible to say that the crisis environment is left behind and the international capital movements begin anew.

On the other hand, despite the gradual formation of a stable economic environment in the Eurozone, the application of restrictive fiscal policies in many European countries contracts domestic demand, but there are attempts to boost exports and savings. Due to this, the GDP ratios in the Eurozone increased by 0.4% in 2012. This figure is estimated at 0.5% in 2013. The inability to overcome the economic recession in the European countries will negatively affect the foreign trade between the EU countries and Turkey. In this case, Turkish exports to the Europe will decrease. The foreign trade deficit resulting from the trade between the EU and Turkey is estimated to expand to the detriment of Turkey. The adoption by The European Central Bank of a monetary policy oriented towards price stability and the probability of the FED following an expansionary monetary policy are interpreted as signs that exchange rate policies could no longer be manipulated as political tools. The absence of any possibility of a currency war relieves Turkey of the burden to take additional measures towards that end. Turkey increased her foreign exchange reserves to \$112 billion as a measure against a potential global crisis.

6. Conclusion

After the financial crisis, all the economic agents operating in international markets expressed various opinions on the achievement of continuous growth rates in the world economy and prevention of another crisis and made commitments on the reforms to be implemented. Both the US and the EU took additional measures to regulate the financial markets and to ensure control and supervision in these markets. The adequacy of those additional measures to prevent a future crisis is still controversial. But nothing has yet been done regarding the macroeconomic imbalances, especially the Current Account Imbalances among countries that are regarded as crisis factors. Whereas Germany, China, and Japan record a current account surplus, other industrial countries run current account deficits.

The US prioritize expansionary monetary policy in order to increase employment figures. Fiscal policy is not considered to be an effective tool as it is oriented more towards controlling public deficits.

The EU countries are not expected to exercise a lower exchange rate policy to gain competitive advantage as a result of feeling constrained due to high debt levels. The Eurozone monetary policy is intended for ensuring price stability. Therefore exchange rate policy is secondary to price stability.

The capital inflows to China will increase through the channel of liquidity expansion in the US and the EU, which will in turn boost the pressure on Renminbi for revaluation leading to acceleration of the war against inflation in China. The only way to avoid this for the Chinese government is to abandon the fixed exchange rate policy and free the demand and supply for foreign exchange. If China could ensure price stability, and liberalize the financial sector, and give up on capital controls, the Chinese Renminbi could become a world reserve currency.

In developing countries, a cheaper exchange rate policy will not persist as it was. However, the speculative currency attacks from the US and the Eurozone towards countries such as Turkey could lead to overvaluation of the national currency.

In that case, Turkish Central Bank will intervene in the foreign exchange market and preserve the foreign exchange value of the Turkish currency as well as prevent an increase in cheap imports. This is because

controlling current account deficit is mostly dependent on Turkey to be able to domestically produce her inputs for semifinished goods.

References:

- Brady K. (2012). "United States monetary policy going forward", Joint Economic Committee Republicans, Staff Study, March 2.
- Busch K., Herman C., Hinrichs K. and Schulten T. (2012). Friedrich Ebert Stiftung, Eurokrise, Austeritätspolitik und das Modell Europäische Sozial Model, Wie die Krisenpolitik in Südeuropa die Soziale Dimension der Europa bedroht.
- Burgstaller M. and Feigl G. et al. (2010). Die Krise und die Konsequenzen, Beiträge zur Wirtschaftspolitik Nr. 25, Hrg. Von Kamer für Arbeiter und Angestellte für Wien, Abt. Wirtschaftspolitik
- Deutsche Bundesbank (2011). Basel III Leitfaden zu den neuen Eigenkapital- und Liquiditätsregeln für Banken, Frankfurt/M.
- Bundesministerium für Wirtschaft und Technologie (2012). Wirtschaft, Wachstum, Wohlstand, Sonderheft, Schlaglichter der Wirtschaft, Wachstum für Europa, Paderborn
- Dullien, S. (2012). "Anspruch und Wirklichkeit der Finanzmarktreform: Welche G20- Versprechen wurden umgesetzt?", Institut für Makroökonomie und Konjunkturforschung, Study 26, HTW Berlin.
- Federal Reserve Bank of St. Louis (2011). "Quantitative easing explained", Classroom Edition, Liber 8, Economic Information Newsletter.
- FSB (2011). "Policy measure to address systematically important financial institutions", 4 November 2011, available online at: <http://www.financialstabilityboard.org/publications/r111104bb.pdf>.
- Hagemann H. and Kramer H. (Hrsg) (2011). Keynes 2.0-Perspektiven einer modernen keynesianischen Wirtschaftstheorie und Wirtschaftspolitik, Bd.23 Metropolis, Marburg.
- Ifo Institut (2013). Impressum, Deutsche Konjunktur erholt sich-Wirtschaftspolitik-Stärker an der langfristigen ausrichten, Projektgruppe Gemeinschaftsdiagnose, Frühjahr 2013, available online at: <http://ftp.zew.de/pub/zew-docs/gutachten/gd-Fruehjahr2013.pdf>.
- IMF (2011b). *World Economic: Slowing Growth, Rising Risks*, September, Washington, DC.
- Kibritcioglu A. (2010). "Küresel Finanskrizinin Türkiye'ye Etkileri — Global financial crisis and its impacts on Turkish economy", *International Finance*, Ankara.
- Klein M. and Teng F. (2010). "Währungskrieg: Schlagwort oder reale Bedrohung?", *Working Papers on Global Financial Markets*, No. 14.
- Marterbauer M. (2010). "Wirtschaftspolitische Wege aus der Krise", in: Burgstaller M., Feigl G., Guger A., Lacina E., Martebauer M., Schlager C., Schuberth H., Strutzmann I., Wieser C., Wixforth S., Zotter T., Zuckerstätter S., *Die Krise und die Konsequenzen Wirtschaftspolitik-Verteilungsfragen-Finanzmarktregulierung, Der direkte Weg zu Broschüren der Abteilung Wirtschaftspolitik, Arbeitskammer*, Beiträge der Wirtschaftspolitik Nr.25.
- Matthes J., Löchel H., Vollmer U. and Landman O. (2013). "Führt die Geldpolitik der japanischen Zentralbank zu einem Währungskrieg?", *Ifo Schnelldienst*, Vol. 66, pp. 3-18.
- The World Bank, World Development Indicators (WDI) Welt auf einen Blick, Wirtschaft, Währungsreserven und Goldreserven, Statistika 2013-03-01.
- Rotschild Kurt W. (2010). "Alternative Konzepte der Wirtschaftspolitik, Hrsg. Von Forum Politische Bildung Informationen zur Politischen Bildung", Bd.33 Innsburg-Wien-Bozen.
- Weber, Axel A. (2011). "Zur Rolle der Wirtschaftspolitik nach der Krise", Rede an der Ruhr Universität Bochum, Präsident der Deutschen Bundesbank.
- Wyatt E. (2011). "Fed proposes new capital rules for banks", *New York Times*, December 2011, available online at: <http://www.nytimes.com/2011/12/21/business/fed-proposes-new-capital-rules-for-banks.html>.
- Wheatley J. and Garnham P. (2010). "Brazil in 'currency war' alert", *Financial Times*, 27.09.2010.

The Optimal Foreign Entry Mode Choice: The Role of Firm Heterogeneous Capability

Chen Lili, Zhou Mao, Shen Ting

(Southwest University of Finance and Economics, Chengdu, China)

Abstract: By developing a general equilibrium model with firm heterogeneity in capability, this study attempts to explore specifically how a firm's technology and management mobile capabilities with other immobile capabilities affect its optimal entry mode choice. We highlight that a firm with relatively stronger management capability prefers M&A in management intensive industry, while a firm with the strongest technology capability prefers newly-built operation in technology intensive industry. Our theoretical results are consistent with the findings in the empirical work of Andersson and Svensson (1994).

Keywords: foreign direct investment; greenfield FDI; mergers and acquisitions; technology capability; management capability

JEL codes: F1, L2

1. Introduction

This paper examines how a firm's heterogeneous capability in technology and management affect its optimal entry mode choice with a general equilibrium model. Our results show, in equilibrium, a firm's capabilities play a key role in determining its optimal international entry mode choice. Our paper is closest in spirit to two strands of literature examining the choice of foreign entry mode. One strand, the Management literature, relying on "resource-based view of the firm", emphasizes a firm's capabilities as the determinants of the international organization of production. According to the "resource-based view of the firm", a firm's endowment of "capabilities" or intangible assets is key to superior firm performance (Wernerfelt, 1984). The Management literature discovers that the level of technology and management capability endowed by a firm plays a significant role on its performance. Anderson and Svensson (1994) argue that a distinction should be made at the firm level between technology skill and organization/management skills. "Technology skill" is related to invention and the ability to innovate with respect to investment in own R&D, and "Organization/Management capability" is associated with the ability to absorb and utilize existing knowledge. Using Swedish data, their empirical paper shows that a greater propensity to undertake M&A when a firm owns higher organization/management capability,

Chen Lili, Professor, School of International Business, Southwestern University of Finance and Economics; research areas/interests: International trade and investment. E-mail: llchen@swfue.edu.cn.

Zhou Mao, Ph.D. Student, School of International Business, Southwestern University of Finance and Economics; research areas/interests: international trade and investment. E-mail: 603970224@qq.com.

Shen Ting, Postgraduate Student, School of International Business, Southwestern University of Finance and Economics; research areas/interests: international trade theory and policy. E-mail: 782607126@qq.com.

and a greater propensity to undertake greenfield FDI when a firm owns higher technology capability. The other strand, the “new” Trade literature, based on a general equilibrium analysis, analyzes the endogenous selection of heterogeneous firms into models of foreign entry (Melitz, 2003; Bernard et al., 2003; Helpman et al., 2004). Few studies combine these two strands in an integrated framework with the exception of Nocke and Yeaple (2007). An important feature we share with Nocke and Yeaple (2007) is that we incorporate the “resource-based view of the firm” into a general equilibrium model of international trade and investment. The key difference between our paper and that of Nocke and Yeaple (2007) is that we explore specifically how the technology and management mobile capability a firm possesses affects the optimal choice of international entry modes. In contrast to our paper, Nocke and Yeaple (2007) have mainly discussed how the degree of international mobility of different capabilities affects a firm’s optimal entry mode choice.

The management strategy literature posits that some capabilities, such as marketing, distribution, and country specific institutional competency are imperfect mobile across countries (Anand & Delios, 2002). Through merge and acquisition, the acquiring firm can exploit complementarities between local firms’ country specific capabilities and its own technological advantages. The more the acquiring firm can learn about the market of host country, the greater the benefit of M&A. However, the acquired activities involve risky exposure of technology which may lead to a reduction of the acquirer’s core competitiveness, especially for acquirers with advanced technologies. By contrast, by engaging in greenfield FDI, firms can protect its proprietary technology and maintain its market power as illustrated by Hennart et al. (1993, 1997). But one key disadvantage through greenfield FDI is that firms cannot access local firms’ specific resource quickly. Therefore, there is a trade-off between these two FDI options in various industries.

In this paper, we highlight that greenfield FDI can be the optimal choice for a firm with low management capability in management intensive industry if the firm is endowed with the strong mobile capability in technology. This is in contrast to the findings of Nocke and Yeaple (2007) that a firm with high mobile capability only prefers M&A access in all types of mobile intensive industry. Our theoretical results are consistent with the findings in the empirical work of Andersson and Svensson (1994).

2. The Model

2.1 Demand

We begin with a model based on Nocke and Yeaple (2007) with two identical countries, A and B, indexed by k . Each country is endowed with Y units of labor, whose price is normalized to 1. For each country, the representative consumer has two-tier preferences: Cobb-Douglas preferences over two types of industries and the CES preferences over a continuum of varieties in each industry. The sub-utility in the industry i can be written as,

$$U_i = \left[\int_{\omega \in \Omega_i} q(\omega)^{1-\rho_i} x(\omega)^{\rho_i} d\omega \right]^{\frac{1}{\rho_i}}, \rho_i = \frac{\sigma_i - 1}{\sigma_i}, \sigma_i > 1 \quad (1)$$

Where $x(\omega)$ is the level of consumption, $q(\omega)$ is the perceived quality of variety ω , σ_i is the elasticity of substitution across varieties and Ω_i is the set of varieties available to consumers.

These preferences generate a demand function for individual varieties in each industry of country k

$$x^k(\omega) = \beta_i Y (P_i^k)^{\sigma_i - 1} q^k(\omega) p^k(\omega)^{-\sigma_i} \quad (2)$$

Where β_i is the income share of the expenditure spent on the goods of industry i ($\sum \beta_i = 1$) $p^k(\omega)$ denotes

the price of variety ω , P_i^k is the aggregate price index for the industry i , $P_i^k = \left[\int_{\omega \in \Omega} q^k(\omega) p^k(\omega)^{1-\sigma_i} d\omega \right]^{\frac{1}{1-\sigma_i}}$.

Since nations are symmetric, the price indices in the two nations are the same: $P_i^k = P_i$.

2.2 Firms' Types and Product Quality

Nocke and Yeaple (2007) suggest that firms' endowments can be distinguished into two types according to their mobility: "mobile" and "non-mobile" capability. "Mobile" capability can travel easily across borders. In contrast to "mobile" capability, "non-mobile" capability is usually country specific, such as knowledge of local market condition, consumer tastes, or the relationships between local supplies and buyers. Therefore, it is more costly to travel across countries. The empirical findings of Anderson and Svensson (1994) suggest that the nature and composition of skills exert a major influence on the entry mode. We investigate technology capability, management capability and other "non-mobile" capabilities denoted by t , z and n , respectively. Therefore, a firm's type is indexed by (t, z, n) .

The defining feature of "non-mobile" capability according to Nocke and Yeaple (2007), is that "non-mobile" capability can be more effective in its country of origin than abroad. For example, "marketing expertise" is usually country-specific. The better a firm's marketing expertise is, the more possibility its product is accepted by local consumers. Henceforth, when a firm utilizes country A's "non-mobile" capability to serve country A which is denoted by n^A , its perceived quality in country A is $q^A = n^A$. But provided that it uses this capability to serve the other nation B, its perceived quality in nation B is only $q^B = \delta n^A$, where $\delta \in (0, 1)$. The parameter δ reflects the disadvantage of using a "non-mobile" capability originated from a different country.

2.3 Production

2.3.1 Marginal Cost

The efficiency of a firm's productivity hinges on its own technology level directly. There is an inverse relationship between a firm's technology and its marginal cost: $c(t) = 1/t$, where $t > 0$. Goods that are exported across border are subjected to the melting-iceberg transport cost $\tau_i > 1$. Let $\hat{c}^k(\omega)$ denote the marginal cost of a firm selling variety ω in country k . The profit maximization price must then satisfy $p^k(\omega) = \hat{c}^k(\omega) / \rho$, i.e., each firm charges a fixed markup.

2.3.2 Cost Function When Engaging in Greenfield FDI

Under the mode of greenfield FDI, a firm owns its proprietary technology and can minimize the risk of losing control over the technology. A firm with proprietary technology usually has better bargaining power in the factor market. The higher a multinational company's technology level, the more significant monopoly advantage in production it gets and the lower the marginal cost it incurs. We assume that a firm's marginal cost of producing in the foreign country when it enters the market through greenfield FDI is $c(t) = \frac{1}{t} f(t)$, where $f(t) \in (0, 1)$ ¹. We define $f(t)$ as a cost reduction factor caused by its monopoly advantages in production from its proprietary technology. Firm's "non-mobile" capability, however, still keeps its initial value n via greenfield FDI.

2.3.3 Cost Function When Engaging M&A

Firms with higher management capability have stronger capability to exploit complementarities from the acquired companies when engaging M&A. According to the Management strategy literature, this synergy effects improve firm productivity. We assume, after the firm of type (t, z, n) accomplishes its acquisitions, its technology

¹ $f(t)$ has the following properties of function $f'(t) < 0$, $\lim_{t \rightarrow 0} f(t) = 1$, $\lim_{t \rightarrow \infty} f(t) = 0$

level changes to $tg(z)$, where $g(z)$ is characterized as a technology absorptive factor². The foreign production unit of the firm who enters the market through M&A is $c = \frac{1}{tg(z)}$. Moreover, a firm can make use of the acquired firm's "non-mobile" capability in recipient nations n' which is often better than n .

2.4 Stages of Firm Decision

For simplicity, we exclude the situation of export-platform FDI, and all activities have to be undertaken with the firm because of contracting problems.

Besides production at home market, a firm can sell its product abroad by 3 distinct ways: exporting with the transport cost; setting up newly-built operations or executing M&A. Entrants' decision proceeds in two stages:

Stage 1: An entrant decides to be acquired in M&A market or to how to serve international market most profitably as a firm.

Stage 2: A firm competes in the market as price setters and achieves profit.

We refer to a player "entrant" or "firm". The distinction between "entrant" and "firm" is useful as an entrant may acquire or be acquired by other entrant at stage 1.

3. Equilibrium

In this section, we discuss the equilibrium of our model and determine the equilibrium pattern of exporting, greenfield FDI or M&A. We assume a perfectly competitive M&A market, $V_i(t, z, n)$ represents the stock price of an entrant with type (t, z, n) in the M&A market in industry i . For the entrant of type (t, z, n) , it can sell itself to achieve the value $V_i(t, z, n)$, or buy another entrant of type (t', z', n') at price $V_i(t', z', n')$. Since the acquired firms are always not well developed and characterized by lacking technology or management advantages but still possess valuable local resources. We henceforth assume, under market clearing condition, the value of an acquired entrant in the M&A markets is $V(0, 0, n)$, which only depends on its advantages originating from its "non-mobile" capability.

3.1 The Gross Profit

We begin by deriving the gross profits of firms at the second stage. The gross profit of a firm selling variety ω in country k is given by

$$S_i q^k(\omega) (\hat{c}^k(\omega))^{1-\sigma_i} \quad (3)$$

Where the markup-adjusted demand level S_i is given by

$$S_i = \frac{\beta_i Y}{\sigma_i (\rho_i P_i)^{1-\sigma_i}} \quad (4)$$

Now, the firm's gross profit in country k depends on firm's technology level, firm's management capability, firm's perceived quality in country k (which depends on the "non-mobile" capability used for serving country k) and its entry mode. We define the post-M&A type of a firm as (t, z, n_1, n_2) , where n_1 is its own "non-mobile" capability, and n_2 is the "non-mobile" capability obtained in a foreign country. The gross profit that this firm in country B achieves from selling in country A is given by

² $g(z)$'s characteristics are as follows: $g(z) > 1$, $g'(z) > 0$, $\lim_{z \rightarrow \infty} g(z) = \infty$

$$\begin{aligned} \text{Exporting: } & S_i T_i \delta_i n_1 \left(\frac{1}{t}\right)^{1-\sigma_i} \\ \text{greenfield FDI: } & S_i \delta_i n_1 \left[\frac{1}{t} f(t)\right]^{1-\sigma_i} \\ \text{M\&A: } & S_i n_2 \left[\frac{1}{tg(z)}\right]^{1-\sigma_i} \end{aligned}$$

For notational simplicity, let $T_i = \tau_i^{-(\sigma_i-1)}$ ($T_i = \tau_i^{1-\sigma_i} < 1$), the advantage of this transformation is that a firm's profit is linear in the redefined variables. It is worthy of noting that there is a negative correlation between $T_i < 1$ and τ_i .

We now yield this firm's total profits generated from domestic and the foreign country

$$\text{Exporting: } \pi_x = (1 + T_i \delta_i) S_i n_1 \left(\frac{1}{t}\right)^{1-\sigma_i} \quad (5)$$

$$\text{greenfield FDI: } \pi_g = \left[1 + \delta_i f(t)^{1-\sigma_i}\right] S_i n_1 \left(\frac{1}{t}\right)^{1-\sigma_i} - F_c \quad (6)$$

Where F_c is the fixed cost under the mode of greenfield FDI.

$$\text{M\&A: } \pi_a = S_i (n_1 + n_2) g(z)^{\sigma_i-1} \left(\frac{1}{t}\right)^{1-\sigma_i} - V(t', z', n_2) \quad (7)$$

Where $V(t', z', n_2)$ denotes the stock price of the acquired entrant.

We then turn to the first stage. For the firm of type (t, z, n) , the value from selling itself or serving the foreign market is $V(t, z, n) = \max \{V(0, 0, n), \pi_x, \pi_g, \pi_a\}$.

3.2 Industry

In this subsection, we first consider technology intensive industry M. For simplicity, we suppose all firms in the industry M are only different in technology level, each firm's management ability is 1, and "non-mobile" capability is also 1. For the entrant of type $(t, 1, 1)$, its value is $V(t, 1, 1)$

$$V(t, 1, 1) = \max \{V(0, 0, 1), \pi_x(t), \pi_g(t), \pi_a(t)\} \quad (8)$$

Where

$$\pi_x(t) = (1 + T\delta) S t^{\sigma-1}$$

$$\pi_g(t) = \left[1 + \delta f(t)^{1-\sigma}\right] S t^{\sigma-1} - F_c$$

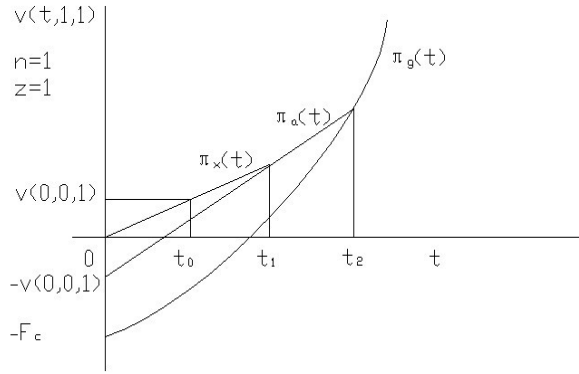
$$\pi_a(t) = 2Sg(1)^{\sigma-1} t^{\sigma-1} - V(0, 0, 1)$$

Since $(1 + T\delta)S < 2S < 2g(1)^{\sigma-1}S$ and $\lim_{t \rightarrow \infty} [1 + \delta f(t)^{1-\sigma}]S > 2g(1)^{\sigma-1}S$. These profit functions are depicted in

Figure 1. It is evident immediately to get three thresholds,

$$t_0 = \left[\frac{V(0, 0, 1)}{(1 + T\delta)S}\right]^{\frac{1}{\sigma-1}}, \quad t_1 = \left\{\frac{V(0, 0, 1)}{[2g(1)^{\sigma-1} - 1 - T\delta]S}\right\}^{\frac{1}{\sigma-1}}, \quad t_2 = \left\{\frac{V(0, 0, 1) - F_c}{[2g(1)^{\sigma-1} - 1 - \delta f(t)^{1-\sigma}]S}\right\}^{\frac{1}{\sigma-1}}.$$

Proposition 1. There exist three thresholds $0 \leq t_0 \leq t_1 \leq t_2$. Firms with a technology level between $(0, t_0)$ sell themselves in the M&A market, firms with a technology level between (t_0, t_1) supply the foreign market through exporting, firms with a technology level between (t_1, t_2) serve the foreign market via acquiring foreign entrants. When $t \in (t_2, \infty)$, firms select greenfield FDI (see Figure 1).


 Figure 1 Technology's Capability Impact on Firms' Selection of Internationalization Path³

We now move on to industry N, which is management intensive. In this industry, we assume all firms in this industry only differ in management ability, each firm's technology is 1, and "non-mobile" capability is also 1. For the entrant of type $(1, z, 1)$, its value is $V(1, z, 1)$

$$V(1, z, 1) = \max \{V(0, 0, 1), \pi_x(1), \pi_g(1), \pi_a(z)\} \quad (9)$$

Where

$$\pi_x(1) = (1 + T\delta)S$$

$$\pi_g(1) = [1 + \delta f(1)^{1-\sigma}]S - F_c$$

$$\pi_a(z) = 2g(z)^{\sigma-1}S - V(0, 0, 1).$$

Since $V(0, 0, 1)$, $\pi_x(1)$, $\pi_g(1)$ are unrelated to z , we just need to compare the two entry modes: greenfield FDI and M&A or exporting and M&A. As $y = g(z)$ is monotonic increasing function, it has inverse function. When $\pi_g(1) = \pi_a(z)$ or $\pi_x(1) = \pi_a(z)$, we can derive the thresholds, respectively

$$\bar{z}_1 = g^{-1} \left\{ \left[\frac{S + \delta f(1)^{1-\sigma}S + V(0, 0, 1) - F_c}{2S} \right]^{\frac{1}{\sigma-1}} \right\} \text{ or } \bar{z}_2 = g^{-1} \left\{ \left[\frac{(1 + T\delta)S + V(0, 0, 1)}{2S} \right]^{\frac{1}{\sigma-1}} \right\}.$$

Proposition 2. There exists a threshold $\bar{z}_1 > 0$ or $\bar{z}_2 > 0$, when $z \in (0, \bar{z}_1)$ or $z \in (0, \bar{z}_2)$, the firm is more inclined to select greenfield FDI or exporting, respectively. When $z \in (\bar{z}_1, \infty)$ or $z \in (\bar{z}_2, \infty)$, the firm is more inclined to select M&A (see Figure 2).

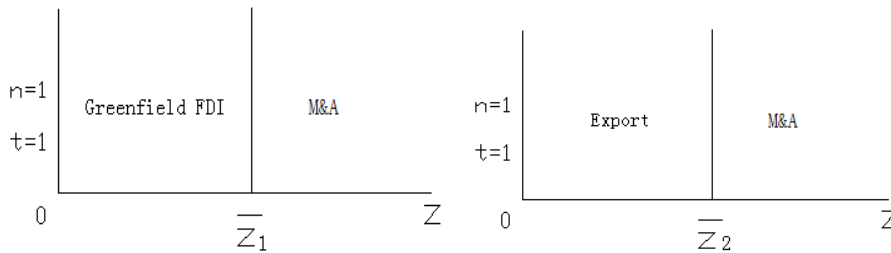


Figure 2 Management Capability's Impact on Firms' Selection of Internationalization Path

³ When $F_c < V(0, 0, 1)$, there are two intersections, but it does not affect a firm's interval of decision making.

4. Conclusion

In this paper, we develop a general equilibrium with firm's heterogeneity in technology and management capability to address two sets of questions: (1) Does a firm's different mobile capability affect firm's entry mode choice differently? (2) What is the optimal international organization of production among exporting, greenfield FDI and cross-border M&A for a firm which possesses different heterogeneous technology and management mobile capabilities in different industry? There are three predictions derived from our model. First, the source of firm's different mobile capabilities plays an important role for the optimal entry mode choice. Second, in the industry where all firms differ in management capability, firms with relatively stronger management ability prefer to M&A, while firms with relatively less management ability prefer to newly-built operations. On the contrary, in the industry where all firms differ in technology capability, the lowest efficient firms choose to sell itself in M&A market, less efficient firms opt to export, higher efficient firm chooses M&A, while the highest efficient firm chooses greenfield FDI. Third, our paper also contributes to the management strategy literature based on "resource-based view of the firm" by providing a theoretical explanation on the best entry mode choice.

Our research has some policy implications. As explored by our analysis, the optimal entry mode is different for a firm with different mobile capabilities. Hence, the government should exert policy tailored for the particular type of FDI in order to obtain the optimal social welfare.

Acknowledgement

We thank Xuebin Yang, Larry Qiudongxiao, JieMa and Jin Zhou for their very helpful comments and suggestions. We benefit from presentations at the 2013 Chinese Economists Society(CES), the 2014 China trade research group(CTRG). All errors in this manuscript are ours.

References:

- Andersson T. and Svensson R. (1994). "Entry modes for direct investment determined by the composition of firm-specific skills", *Scandinavian Journal of Economics*, Vol. 96, No. 4, pp. 551-560.
- Anand J. and Delios A. (2002). "Absolute and relative resources as determinants of international acquisitions", *Strategic Management Journal*, Vol. 23, No. 2, pp. 119-134.
- Helpman E., Melitz M. J. and Yeaple S. R. (2004). "Export versus FDI with heterogeneous firms", *American Economic Review*, pp. 300-316.
- Hennart J. F. and Park Y. R. (1993). "Greenfield vs. acquisition: The strategy of Japanese investors in the United States", *Management Science*, Vol. 39, No. 9, pp. 1054-1070.
- Hennart J. F. and Reddy S. (1997). "The choice between mergers/acquisitions and joint ventures: The case of Japanese investors in the United States", *Strategic Management Journal*, Vol. 18, No. 1, pp. 1-12.
- Melitz M. J. (2003). "The impact of trade on intra-industry reallocations and aggregate industry productivity", *Econometrica*, Vol. 71, No. 6, pp. 1695-1725.
- Makadok R. (2001). "Toward a synthesis of the resource-based and dynamic-capability views of rent creation", *Strategic Management Journal*, Vol. 22, No. 5, pp. 387-401.
- Nocke V. and Yeaple S. (2007). "Cross-border mergers and acquisitions vs. greenfield foreign direct investment: The role of firm heterogeneity", *Journal of International Economics*, Vol. 72, No. 2, pp. 336-365.
- Wernerfelt B. (1984). "A resource-based view of the firm", *Strategic Management Journal*, Vol. 5, No. 2, pp. 171-180.

Appendix

Proof of the gross profit of a firm selling one variety in country A (equation 3)

A firm's gross profit selling one variety in country A,

$$\pi = [p^A(\omega) - \hat{c}^A(\omega)] \beta_i Y (P_i^A)^{\sigma_i - 1} q^A(\omega) p^A(\omega)^{-\sigma_i}$$

We calculate the partial derivative of π with respect to $p^A(\omega)$,

$$\frac{\partial \pi}{\partial p^A(\omega)} = \beta_i Y (P_i^A)^{\sigma_i - 1} q^A(\omega) \left\{ p^A(\omega)^{-\sigma_i} + [p^A(\omega) - \hat{c}^A(\omega)] (-\sigma_i) p^A(\omega)^{-\sigma_i - 1} \right\} = 0$$

$$\text{So we have } p^A(\omega) = \frac{\sigma_i}{\sigma_i - 1} \hat{c}^A(\omega) = \frac{1}{\rho_i} \hat{c}^A(\omega).$$

Using the optimal pricing we can express the firm's gross profit selling one variety in country A

$$\pi = S_i q^A(\omega) [\hat{c}^A(\omega)]^{1 - \sigma_i}$$

where the markup-adjusted residual demand level

$$S_i = \frac{\beta_i Y}{\sigma_i (\rho_i P_i^A)^{1 - \sigma_i}}$$

The Interaction between Exchange Rate and Foreign Direct Investments: Evidence from Turkey*

Oktay Kızılkaya¹, Gülbahar Üçler¹, Ahmet Ay²
(1. Ahi Evran University, Turkey; 2. Selçuk University, Turkey)

Abstract: In this study, the relationship between real exchange rate and foreign direct investments were investigated by using quarterly data covering the period 1989Q1-2011Q1 for the Turkish economy. The existence of long-term relationships between these variables were tried to be determined via control variables, such as trade openness and inflation rate. For this purpose, the bound testing approach and ARDL method enabling different levels of stationary of variables and predicting short-term and long-term coefficients were employed. The findings that were obtained from the bound testing and ARDL method show that a certain implication is not possible about the long-term relationship between real exchange rate and foreign direct investments as none of the F statistics climbed over the Pesaran et al. (2001) upper bound critical values for the first model. In the second model, the findings indicate that real exchange rate, trade openness and inflation rate affect foreign direct investments positively.

Key words: real exchange rate; foreign direct investments; the bound testing approach and ARDL method; Turkey

JEL codes: F2, F41

1. Introduction

Underdeveloped and developing countries were impelled to apply the reforms of liberalization as they achieved the goals of economic development notably after the 1980s when globalization gained speed. This conjuncture made the tendency of liberalization inevitable and annihilated the interstate boundaries, bringing about not only foreign expansion and free circulation of foreign capital but also the convertibility of national currency to foreign currencies in many countries including Turkey. These globalization movements which accelerated in the last years of the twentieth century became effective on political, social and economical decision-making processes and brought about radical changes in economical policies and structures. In order to keep up with this process, Turkey has rearranged its economy policies starting from 1980. The Stabilization

*This study was presented as a paper in "International Anatolia Economics Congress III (EconAnadolu)" which held at Eskişehir Anadolu University in 19-21 June 2013.

Oktay Kızılkaya, Ph.D., Assistant Professor, Department of Economics, Ahi Evran University; research areas/interests: international economics, macro economics. E-mail: okizilkaya@ahievran.edu.tr.

Gülbahar Üçler, Ph.D., Assistant Professor, Department of Economics, Ahi Evran University; research areas/interests: macro economics, econometrics. E-mail: gulbahar.ucler@ahievran.edu.tr.

Ahmet Ay, Ph.D., Professor, Department of Economics, Selçuk University; research areas/interests: international finance, macroeconomics. E-mail: ahmetay@selcuk.edu.tr.

Program of 24th January which was put into effect in 1980 aimed at opening the economy to foreign competition, promoting foreign capital, augmenting the export, and reducing the role of state in economy. With this program, instead of the inward-oriented industrialization, an export-based and outward-oriented industrialization strategy was adopted. Therefore, this program is considered as a turning point for Turkish economy. The economy policies applied by Turkey and its results in this structural transformation and adaptation process are still being discussed.

On the other side, one of the Turkey's most important economic problems is its deficiency of capital and technology. As the low real income incapacitates savings, the capital need cannot be provided by domestic fundings. For this reason, in developing countries, foreign capital investments are needed to maintain economic growth and development. On the other hand, for the decisions regarding foreign direct capital investment, while the countries where production factors are abundant and cheap, domestic market demand is high, investment subsidies are put into practice and infrastructure facilities are provided are chosen, macroeconomic indicators in a country for which the investment is planned are crucially important. Expectation of the source-poor countries from foreign capital is to increase domestic investment, savings and growth. However, the experiences in the countries where macroeconomics indicators are defective, debt ratio is high and short-term capital inflows are intense, which shows these affirmative expectations haven't been realized. Particularly, because of speculations and high volatility, the short-term liabilities can leave the country as adverse expectations are rising. This can come up as a factor that affects crises. This case negatively influences the economic growth and development.

In this study, reel exchange rate and foreign direct investment variables were estimated by using various control variables with the help of quarterly data belonging to Turkish economy. The short and long-run relationship between variables were tried to be determined with ARDL models and an established limit test.

2. Theoretical Framework

There are plenty of theories on foreign direct investment trying to explain why international firms participate in international manufacturing. Yet, there is no specific model about the factors affecting the flow of foreign direct investment. In the same way, traditional models which have been steering the international trade and capital changes have come under heavy criticism within years. The first studies on multinational manufacture are attributed to the neoclassical theories regarding the capital movements and trade within the scope of Heckscher-Ohlin. However, these theories are based on the assumption that factor endowment and commodity markets subsist and therefore they are unprosperous in terms of a satisfying explanation about the structure and nature of foreign direct investment. These theories emphasize that investing abroad has no downsides and investing in the host country should have substantial odds as well. The fact that foreign direct investment among developed countries reached to a large amount in the 1950s has attracted the attention of economists and many theories have been proposed to explain the causes of such investments. With regard to capital movements, without distinction between foreign direct investment and portfolio investment, capital movements in Marxist and Neo-classic approaches which analyze international capital movements are explained based on underdevelopment and interest rate differences. Besides this, the Level of Output Hypothesis asserts a positive relation between the investments and outputs (sales) of a micro-level firm in foreign countries. The Market Size Hypothesis asserts a positive relation between the market size of a country with a macro-level income and foreign investment (Agarwal, 1980, p. 748). These hypotheses are based on classical assumptions and focus on the specific reasons of invested countries rather than those of a firm (Yapraklı, 2006, p. 26).

Hymer (1976) and Dunning (1977, 1988) explain why multinational corporations embark on foreign direct investments with different approaches. Hymer (1976) focuses on the benefits of firms. These advantages include attaining a patented or non-existent technology, team-specific management skills, economies of scale, specialized marketing capabilities, having a brand name etc.

Before investing abroad, it is required to emphasize the earnings from possible advantages with disadvantages that can show up after foreign investment. On the other hand, Dunning (1977, 1988) mentions three conditions for a firm's access to foreign direct investment. Ownership, Location, and Internalization abbreviated as OLI indicates an eclectic theory of foreign direct investment, that's the advantages of ownership, location and internalization. In the literature of foreign direct investment, exchange rate effects foreign direct investments in two ways and it is accepted as an indicator of competitive power.

In case of rising exchange rates, increasing local input in export-oriented foreign investors, enable investors to increase profit and export. In that case, rise in the exchange rate will affect the foreign direct investment positively. Besides, in the event of rising exchange rates, increasing imported input and being highly dependent on imported inputs cause investors to decrease profit and export.

In that case, rise of exchange rate will negatively affect the foreign direct investments. Net effect of the real exchange rate on foreign direct investment will come up according to the relative size of these two effects regarding each other. Most of the studies in the literature indicate that foreign direct investments will increase in case of currency depreciation. On the other hand, after analyzing the panel data for 55 countries during 1980-1997, MacDermott (2008) concludes that real exchange rate depreciation in the host country leads to a reduction in foreign direct investment. Moreover, high volatility of exchange rates reduces foreign direct capital investments. Yet, multinational companies that have been investing in a particular country do not quickly give up their investments because of poor exchange rates.

3. Literature Review

Since the breakdown of the Bretton-Woods system, policy makers and researchers have been discussing the effects of exchange rate movements on trade and investment. Direction of the relationship between foreign direct investment and exchange rates has been one of the important issues of debate in parallel with the proliferation of a floating exchange rate system. Yet, there is no consensus in the literature about the direction of this relationship (Vergil & Çeştepe, 1997, p. 37). The relationship between exchange rates and foreign direct investment was first discussed by Aliber (1970). By analyzing the relevance of foreign direct investment in financial factors, Aliber has brought a different approach. As a remark of the Aliber hypothesis in the literature, existence of several currency areas generate foreign direct flows. Froot and Stein improved this hypothesis after Aliber and found similar evidences supporting Aliber's hypothesis in their study on the disruption of capital markets (Dursun& Bozkurt, 2007, p. 3).

From theoretical point of view, there is no consensus between foreign direct investment and the casual direction of exchange rates. In the model developed by Dornbusch (1973), it is implied that there is a causality from foreign direct investment to real exchange rates. While Dornbusch (1973) was analyzing the effects of the inward foreign direct investment flows on real exchange rates movements, he indicates the importance of where foreign capital slanted in domestic economy. If inward foreign direct investment flows are used for financing domestic expenditures, at the first step this situation will lead to a rise in real exchange rate values and therefore it

will cause a current account deficit. At the second step current account deficit will lead to depreciation of the nominal exchange rate and the ultimate effect of the inward foreign direct investment flows on real exchange rate will be ambiguous. If inward foreign direct investment use flows to finance capital accumulation in a sector that products commodity, supply of commodity will remain, business transaction account will recover and real exchange rate will gain value. On the other hand, if inward foreign direct investment use flows to finance capital accumulation in non-commodity sectors, business transaction account will deteriorate and real exchange rate will depreciate. The same causality relation was alleged by Branson (1992). In the portfolio model developed by Branson, in a country where capital is scarce and labor force is cheap, liberalization of capital flows and finance sector will lead to inflation and a rise in values of real exchange rates. According to Edwards's (1985) empirical study, Chilean liberalization of capital account between 1979 and 1981 led to the appreciation of Chilean currency to a significant extent, and this confirmed the estimates (Vergil & Çeştepe, 1997, p. 39). Kohlhagen (1977), Itagaki (1981) and Cushman (1985) suggest foreign investors to avoid risk so as they advocate that the volatility of exchange rate movements probably reduce the flow of foreign direct investment. By using optional theoretical papers, Dixit (1989) shows that foreign investors postpone their investment decisions in view of volatility of exchange rates movements. Caves (1989), Froot and Stein (1991), Swenson (1994) and Klein Rosengren (1994), found a correlation between the fall of dollar and capital investments flow to the USA in these workings. Ray (1989), Stevens (1992) and Healy and Palep (1993) didn't find any such relation. In all these studies average disvaluation is still observed as a probable power for the flow of foreign direct investment.

Chakrabarti and Scholnick (2002) have contributed to the literature in two different areas. Firstly, by using the data based on investor behaviors rather than survey, they analyze the expectations and contribute to the study of exchange rate expectations. Secondly, in new statements based on the expectations at the return average level, they contributed to the study of relations between foreign direct investment and exchange rate movements. Many panel data estimation techniques are used to involve exchange rate movements and foreign direct investment flows of U.S and 20 other countries for 14 years (mostly 1980s and early 1990s). Contrary to the expectations, devaluation in the prior year had no significant positive effect on the foreign direct investment flows. Although previous studies argue that increased exchange rate will reduce the flow of foreign direct investment, their results for fluctuations are not very strong. According to Chakrabarti and Scholnick, if there is a belief that there is recycling to average level in economic units after a major shock in exchange rate, this situation defends that there will be an impact on foreign direct capital investment.

Based on panel cointegration techniques, Combes et al. (2011) try to clarify how capital flow and elasticity of exchange rate effect real exchange rate of developing countries. Their results indicate that private and public capital flows are connected with the assessment of real exchange rate. By using actual measurement of exchange rate elasticity, Combes concludes that more elastic exchange rate will lead to a decrease in real exchange rate which increased by capital flow.

Vergil and Çeştepe (1997) investigate the causality between foreign direct investments and real exchange rate in Turkey, by using quarterly data between 1987-2000 with the Granger causality developed by Toda and Yamamoto (1995). To choose the most proper Granger causality test method, given datas were analyzed and Toda and Yamamoto's (1995) extended VAR model was chosen. The results show that Granger causality test is one-way from foreign direct investment to real effective exchange rate. Besides, increase in inward foreign direct investment leads to appreciation in real effective exchange rate. In this respect, finance and capital liberalization of Turkey with scarce capital and low-cost labor leads to augmentation in inward capital flows and this causes

appreciation in real exchange rate.

Agenor et al. (1997) analyze fiscal imbalances and the relation between capital flow and real exchange rate in Turkey during 1980-1997. In line with the last macroeconomical developments in Turkey, VAR model was estimated by using public expenditures, differences of interest, capital flow and real exchange rate. It is seen that public spendings, foreign capital inflows and positive shocks lead to a value-gaining in real exchange rate. However, differences in interest rates and positive shocks cause capital inflows and an evaluation in the temporary composition of real exchange rates.

Vergil and Çeştepe (2006) analyze the relation between volatility of real exchange rate and foreign direct investment flows. In their study, the effects of volatility in real exchange rate on Turkey's foreign direct investment flow are analyzed by developing a fixed effects panel data model for the 1992-2000 period and a time-series panel data model for 1988Q3 and 2001Q2 period. Their results show that, although the relation between foreign direct investment and volatility of real exchange rate is not significant, the relation between foreign direct investment flows and real exchange rates is statistically significant and positive. Currency depreciation of a country in which foreign direct investment is made leads to an increase in foreign direct investment flows in Turkey. Openness variable was found statistically significant and positive in time-series model, which means "majority of foreign direct investment flows aims re-export".

Yapraklı (2006) examines whether there is a relation between foreign direct investment and some macroeconomic variables in Turkey. For this purpose, the relation between foreign direct investment and GDP, cost of labor, real exchange rate, rate of openness and foreign trade deficit were econometrically tested via a multiple cointegration analysis and rule of error correction for the 1970-2006 period. According to the results of this analysis, while GDP and openness effect foreign direct investment positively, cost of labor, real exchange rate and foreign trade deficit effect foreign direct investment in a negative way. Moreover, the relation of causality between foreign direct investment and GDP and real exchange rates are observed. The negative relation between foreign direct investments and real exchange rate is accepted as an indicator of the foreign firms serving in Turkey by using import input in high quantity.

By using the VAR model, Dursun and Bozkurt (2007) analyze how the volatility of real exchange rate effects the foreign direct investment flows between the 1991.12-2006.1 period in Turkey. Theoretical considerations show that the short and long run effects of the volatility in real exchange rate on foreign direct investment are uncertain. This study analyzed whether empirical evidences support the theoretical evidences. Volatility in exchange rate was determined by GARCH model. Its findings have shown that volatility of real exchange rate is not effective on foreign direct investments. This situation may account for the provisions made by foreign investors in Turkey against the future risks in exchange rate.

Koyuncu (2010) examines the factors affecting the foreign direct investment inflows in Turkey. Using the data belonging to the 1990-2009 period and via the structural VAR analysis, the effects of interest rate, rate of openness, real exchange rate, net international reserves, inflation rate (WPI), GDP and similar macroeconomic variables on foreign investment are tested. According to the results, foreign direct investment flows are significantly affected by previous amount of foreign direct investment flows, gross domestic product, openness and changes in net international reserves. With respect to results; increase in foreign trade volume and success of previous investments will encourage more foreign investment in following years. In order to take advantage of the positive effects of foreign direct investments as a political tool, it is important to determine the components affecting the foreign direct investment inflows and to take precautions accordingly.

4. Econometric Methodology and Data Set

Letter symbols used in the study for the 1989Q1-2011Q1 period are shown in Table 1. In the econometric analysis, we report primarily the results of Model 1 which takes real exchange rate as dependent variable and foreign direct investment as an independent variable, secondly the results of Model 2 which takes foreign direct investment as a dependent variable and real exchange rate as an independent variable. Each model includes also openness to trade and inflation rates as explanatory variables. The data about real exchange rate, foreign direct investment and openness were taken from the Central Bank Electronic Data Distribution System. Inflation rate data were taken from IFS (International Financial Static).

Table 1 Defining of Data

Symbol	Explanation of Variables
LFDI	Level of Foreign Direct Investment
LREDK	Real Effective Exchange Rate
LOPEN	Trade Openness Ratio
LTUFE	Change in Consumer Price Index

To investigate the relationship between real exchange rate and foreign direct investment, we used the bounds testing approach developed by Peseran et al. (2001). Although the stationarity levels of the series are different in the bounds testing approach, the existence of cointegration relation can be tested. Another advantage of this approach is that model estimation is possible even with the data which include less observation.

The stationarity levels of the series should be analyzed before the bound test is carried out. Since the models which are estimated with non-stationary regression models lead to spurious regression problems (Granger & Newbold, 1974), the results do not reflect the true relationship. In such a case, the results of t and F tests are no longer valid (Gujarati, 1999, pp. 725-726).

After determining the stationarity level of the series, existence of cointegration among the series is tested. Bounds testing approach suggested by Peseran et al. (2001) consists of two stages. In first of these stages, existence of a long-run relation among the variables in the model is being investigated and then, with the error terms obtained from the long-run equation, error correction model which gives the short-run equation among the variables is estimated through the ARDL method developed by Peseran and Shin (1999). Whether there is a relation of cointegration between the variables is decided by comparing the critical values in Peseran et al. (2001) with the calculated F statistics. While making this comparison, we firstly look at whether the integration degrees of the variables in the model are same or not. If the calculated F statistics is less than Peseran's lower bound, there is no relation of cointegration among the series. If the calculated F statistics is greater than upper bound, there is a relation of cointegration among the series. If the F statistics is between the lower and upper bounds, a decision can not be given about whether there is cointegration or not.

5. Analysis and Empirical Findings

In order to determine the stability levels of the series, unit roots were analyzed. In unit root analysis, we preferred the Augmented Dickey Fuller (ADF) (1981) and Philips-Peron (PP) (1992) tests which do not take notice of structural break. The results of this unit root test are presented in Tables 2 and 3.

Table 2 ADF and PP Unit Root Tests

Variables	LEVEL			
	ADF		PP	
	Trend	Trend+Intercept	Trend	Trend+Intercept
LFDI	0.964628 (0.7626)	-2.538589 (0.3093)	-3.099596 (0.0302)**	-6.420642 (0.000)***
LOPEN	-2.454723 (0.1303)	-0.558547 (0.9787)	-3.389068 (0.0139)**	-0.268478 (0.9904)
LREDK	-1.032611 (0.7386)	-9.174477 (0.0000)***	-1.035338 (0.7376)	-1.780770 (0.7058)
LTUFE	-3.106234 (0.0298)**	2.323475 (1.000)	-4.526579 (0.004)**	1.345646 (1.000)
I. DIFFERENCE				
Δ LFDI	-1.383822 (0.000)***	-1.378472 (0.000)***	-23.32116 (0.000)***	-23.91440 (0.000)***
Δ OPEN	-2.524185 (0.11234)	-4.131047 (0.000)***	-12.61549 (0.000)***	-14.64466 (0.000)***
Δ REDK	-9.174477 (0.000)***	-9.137091 (0.000)***	-9.174469 (0.000)***	-9.137055 (0.000)***
Δ TUFE	-0.862767 (0.0075)***	-4.146635 (0.008)***	-3.520938 (0.009)***	-7.413589 (0.000)***

Note: *** %1, ** %5 and * %10 shows levels of stability.

It is seen that all series in Table 2 are stationary in the first difference. ADF and PP unit root tests do not take into account the structural breaks. In that case, in the event of possible structural break, a stable series can be shown as a non-stationary series. For this purpose, in the next step of our study, ZA unit root test results which take into account the structural break are given.

Table 3 ZA (A Model) Test Results

Variables	ZA Value of Levels	ZA 1. Difference Values
LFDI	-8.803634	-14.49519
LREDK	-12.13524	-9.432441
LOPEN	-2.680756	-14.14735
LTUFE	-1.608621	-9.429765
ZA Critical Value		
0,01	-5.57	-5.34
0,05	-5.08	-4.8
0.10	-4.82	-4.58

Note: Related values taken from (Zivotve Andrews 1992).

While the relevant tests were being conducted, lag length was taken as 5 and the first difference was taken as 4. As the all models of error terms are not non-stationary at level, they were included in the model 1 lag. After the analysis of unit roots of the series, the long-run cointegration relation was analyzed and then the results of the short-run error correcting mechanism were reported.

Model 1: Effects of Foreign Direct Investments on Real Exchange Rate

$$REDK_t = \beta_0 + \beta_1 FDI_t + \beta_2 OPEN_t + \beta_3 TUFE_t + \varepsilon_t \quad (1)$$

Model 2: Effects of Real Exchange Rate on Foreign Direct Investments

$$FDI_t = \beta_0 + \beta_1 REDK_t + \beta_2 OPEN_t + \beta_3 TUFE_t + \varepsilon_t \quad (2)$$

At first, the lag length was determined for the bounds test showing the presence of level relationships, and its results are presented in Table 4.

Table 4 Determination of Lag Length

	Deterministic Trend				Deterministic Without Trend			
	p	AIC	SCH	LM(1)	p	AIC	SCH	LM(1)
Model 1	1	2.57	2.82	2.51 (0.11)	1	2.56	2.78	0.24 (0.62)
	2	1.22	1.59	1.29 (0.00)	2	1.21	1.54	1.12 (0.004)
	LagLength AIC: 2 / 2 Lag Length SCH: 2 / 2							
	Deterministic Trend				Deterministic Without Trend			
	p	AIC	SCH	LM(1)	p	AIC	SCH	LM(1)
Model 2	1	2.57	2.82	2.51 (0.11)	1	2.564	2.78	0.24 (0.62)
	2	1.22	1.59	2.98(0.00)	2	1.205	1.545	2.75 (0.00)
	3	0.99	1.48	1.73 (0.18)	3	0.976	1.432	1.60 (0.20)
	4	0.89	1.49	2.01 (0.15)	4	0.872	1.447	2.01(0.15)
	Lag Length AIC: 4 / 4 Lag Length SCH: 3 / 3							

Note: p gives appropriate lag length and values in parentheses show probability values.

According to the results in Table 4, proper lag lengths were determined and it was seen that these lag lengths had no autocorrelation problem. After analyzing the lag lengths to determine the long run relationship among the series, bounds test results are presented in Table 5.

Table 5 Bounds Test Results

Model 1						
Model with Trend			Model with No Trend		Result	
F-iv	F-v		F-iii			
2.38	2.84		2.93		No Cointegration	
Model 2						
Model with Trend			Model with No Trend model		Result	
F-iv	F-v		F-iii			
21.75	27.15		5.09		Cointegration Exists	
Pesaranvd.(2001) lower limit critical values				Pesaranvd.(2001) upper limit critical values		
	10%	5%	1%	10%	5%	1%
F-iii	2.45	2.86	3.74	3.52	4.01	5.06
F-iv	2.68	3.05	3.81	3.53	3.97	4.92
F-v	3.03	3.47	4.4	4.06	4.57	5.72

Note: Critical values obtained from Pesaran et al. (2001).

k is the number of independent variable in equation. Critical values were taken from Table CI(III), CI(IV) and CI(V) in Pesaran et al.(2001).

FIV: F-statistics obtained through testing the coefficients related to the trend variable and lagged levels in the Trend Stationary model simultaneously against zero.

FV: F-statistics obtained through testing the coefficients related to the lagged levels in the Trend Stationary model simultaneously against zero.

tv: t-statistics of the coefficient pertaining to the level value of dependent variable in the trend Trend Stationary model.

When the findings in the Table 5 are compared to the lower and upper critical values in the study by Pesaran et al. (2001), it is seen that none of the calculated F statistics for Model 1 exceed the upper critical values in Pesaran et al. (2001) and therefore it is not possible to conclude that there is a long-run relationship between real exchange rate and foreign direct investment. However, as the calculated F statistics for Model 2 exceed the upper critical values of Pesaran (2001), it may be said that there is a long-run relationship among the series. Therefore, long-run coefficient estimates have not been passed with ARDL method for Model 1. But, existing long-run level relation among series makes it possible to pass long run coefficient estimating stage. Consequently, determining short and long run relations for Model 2 with ARDL model can be possible like this:

$$FDI_t = \beta_0 + \sum_{i=1}^m \beta_{1i} FDI_{t-i} + \sum_{i=0}^m \beta_{2i} IREDK_{t-i} + \sum_{i=0}^m \beta_{3i} IOPEN_{t-i} + \sum_{i=0}^m \beta_{4i} ITUFE_{t-i} + \mu_i \quad (3)$$

After creating ARDL equation related with model that subjected to analysis, long run coefficients are reported in Table 6.

Table 6 Long Run Coefficients of ARDL

Model 1 (1.2.0.0.)			
Variable	Coefficient	Standard Error	t-statics
LREDK	0.058626	0.029947	1.9576(0.043)
LOPEN	1.258427	0.172517	7.2945(0.000)
LTUFE	0.94725	0.150607	6.2895(0.000)
C	-1.900863	1.050163	-1.8100(0.063)

It can be seen that openness to trade, inflation rate and real exchange rate variables positively affect the foreign direct investments when the given long-run coefficients are analyzed. Studies of Vergil and Çeştepe (2005) and Koyuncu (2010) support that real exchange rate variables effect the foreign direct investment positively. Coefficients which explain the short-run relations among variables can be obtained with the help of error correction model which are innate of ARDL equation. Error correction model between variables is constituted as follows:

$$\Delta FDI_t = \delta_0 + \sum_{i=1}^m \delta_{1i} \Delta FDI_{t-i} + \sum_{i=0}^m \delta_{2i} \Delta IREDK_{t-i} + \sum_{i=0}^m \delta_{3i} \Delta IOPEN_{t-i} + \sum_{i=0}^m \delta_{4i} \Delta ITUFE_{t-i} + ECM_{t-1} + \mu t \quad (4)$$

Error terms obtained from the long-run relation in model are one-period lagged values of series. ECM_{t-1} variable in the model is error correction term. Coefficient of error correction term shows how much deviation will be fixed in the short run. Meaningfulness of error correction model depends on this variable's mark is negative and meaningful.

Table 7 ARDL Error Correction Model and Short Run Coefficients

Variable	Coefficient	Standart Error	t-statics
DLREDK	-0.416007	0.049695	-8.371 (0.000)
DLOPEN	0.629294	0.239138	2.6315 (0.010)
DLTUFE	-0.345758	0.956253	-0.3615 (0.718)
C	0.084593	0.107889	0.7840 (0.433)
ECM	-0.83685	0.080363	-10.413 (0.000)
Diagnostic Tests			
R ² : 0.70	F - İst. : 36.097 (0.000)		D.W. : 1.79

The mark of ECM term giving the error correction coefficient is negative and statistically significant as expected. This means that the adjustment speed is good. According to Bahmani-Oskooee and Brooks (1999), Bahmani-Oskooee and Hajilee (2009) and Bahmani-Oskooee and Wang (2007), if ECM is negative and statistically significant, it means that the variables are cointegrated in the long run. It seems that real exchange rate negatively affects the foreign direct investment in the short run. This result can be explained with the foreign-owned firms using import goods. The variable of openness to trade positively effects the foreign direct investment as it does in the short run. The fact that the variable of openness to trade positively effects the foreign direct investment means that increasing foreign trade volume encourages more foreign direct investment.

6. Conclusion

As a result of our application, it is possible to say that there is a relationship between real exchange rate and foreign direct investment, albeit to different extents. Within this scope, Turkey should develop a policy to gain favor from foreign direct investment and should set a target. Within the framework of this policy, to ensure stability in the foreign exchange market and trade policies that will positively impact the openness that should be followed, the impact of FDI on economic growth in the country is likely to determine the course of real exchange rate. On the other hand, real exchange rate is an important variable putting the competitive power forth in international trade. Consequently, it can be said that the effect of real exchange rate on foreign direct investment depends on the position of a country in foreign trade. Low exchange rates lead to an increase in trade, high real exchange rates lead to an increase in export and this in turn promotes the foreign direct investment. These factors are generally accepted as the enhancers of economic growth because of the contribution of foreign direct investment especially to physical capital stock and employment. Therefore, in the path of growth, Turkey needs to provide a permanent macroeconomic and political stability, to accelerate capital accumulation, to deepen and extend scientific and technological activities.

References:

- Agarwal Jamuna P. (1980). "Determinants of foreign direct investment: A survey", *Review of World Economics*, Vol. 116, No. 4.
- Agenor Pierre-Richard, Mcdermott C. John and Uçer E. Murat (1997). "Fiscal imbalances, capital inflows, and the real exchange rate: The case of Turkey international monetary fund, research and European I departments", IMF Working Paper, 18, pp. 1-12.
- Bahmani-Oskooee M. and Wang Y. (2007). "The J-curve at the industry level: Evidence from trade between the US and Australia", *Australian Economic Papers*, p. 46.
- Bahmani-Oskooee M. and Hajilee M. (2009). "The J-curve at industry level: Evidence from Sweden-US trade", *Economic Systems*, p. 33.
- Caves Richard (1989). "Exchange rate movements and foreign direct investment in the United States", in: D. Audretsch and M. Claudon (Eds.), *The Internationalization of US Markets*, New York: New York University Press.
- Chakrabarti Rajesh and Scholnick Barry (2002). "Exchange rate expectations and foreign direct investment flows", *Review of World Economics* (Weltwirtschaftliches Archiv), Springer, Vol. 138, No. 1, pp. 1-21.
- Combes Jean-Louis, KindaTidiane and Plane Patrick (2011). "Capital flows, exchange rate flexibility, and the real exchange rate", IMF Working Paper, pp. 1-11.
- Cushman David (1985). "Real exchange rate risk, expectations, and the level of direct investment", *The Review of Economics and Statistics*, Vol. 67, No. 2, pp. 297-308.
- Dickey David A. and Fuller Wayne A. (1979). "Distribution of the estimators for autoregressive time series with a unit root", *Journal of the American Statistical Association*, Vol. 74, No. 366, pp. 427-431.
- Dornbusch Rudiger (1988). *Open Economy Macroeconomics* (2nd ed.), New York, McGraw-Hill.
- Dunning John (1977). "Trade, location of economic activity and the MNE: A search for an eclectic approach", University of Reading

Discussion Papers in International Investment and Business Studies, University of Reading, Department of Economics.

- Dursun Gülten and Bozkurt Hilal (2007). "Estimation of real exchange rate with GARCH model and it's relation with foreign direct Investment: Analysis of Turkey", 8. Turkey Congress of Econometrics and Statistics, Inonu Univesity, Malatya.
- Froot Kenneth and Jeremy Stein (1991). "Exchange rates and foreign direct investment: An imperfect capital markets approach", *Quarterly Journal of Economics*, Vol. 106, No. 4, pp. 1191-1217.
- Granger Clive W. J. and Newbold Paul (1974). "Spurious regressions in econometrics", *Journal of Econometrics*, Vol. 2, No. 2, pp. 111-120.
- Gujarati Damador N. (1999). *Fundamental Econometrics (Translators: Ümit Şenesenve Gülay Günlük Şenesen)*, Istanbul: Literature Publishing.
- Healy Paul and Palepu Krishna (1993). "International corporate equity associations: Who, Where and Why?", in: K. Froot (Ed.), *Foreign Direct Investment*, Chicago: University of Chicago Press.
- Hymer Stephen H. (1976). "The international operations of national firms: A study of direct foreign investment", MIT Monographs in Economics, 14, MIT Press, Cambridge, Massachuets, and London, England.
- Itagaki Takao (1981). "The theory of the multinational firm under exchange rate uncertainty", *Canadian Journal of Economics*, Vol. 14, No. 2, pp. 276-297.
- Kar Muhsin and Tatlısöz Fatma (2008). "Analysis of econometric factors determine foreign direct investment in Turkey", *KMU Journal of FEAS*, Vol. 14.
- Klein Michael and Rosengren Eric (1994). "The real exchange rate and foreign direct investment in the United States: Relative wealth vs. relative wage effects", *Journal of International Economics*, Vol. 36, Nos. 3/4, pp. 373-389.
- Kohlhagen Steven (1977). "Exchange rate changes, profitability and direct foreign investment", *Southern Economic Journal*, Vol. 44, No. 1, pp. 43-52.
- Koyuncu Fatma Turan (2010). "Structural VAR analysis of effects macroeconomic variables chosen in Turkey on foreign direct investment: 1990-2009 era", *Economy Journal*, Vol. 2, No. 1, pp. 53-62.
- Macdermot T. Raymond (2008). "Linking exchange rates to foreign direct investment", *The International Trade Journal*, Vol. 22, No. 1.
- Peseran Hashem and Shin Yongcheol (1999). "An autoregressive distributed lag modeling approach to cointegration analysis", in: S. Storm (Ed.), *Econometrics and Economic Theory in the 20th Century: The Ragnar Frisch Centennial Symposium*, Chapter 11, Cambridge: Cambridge Univ. Press.
- Pesaran Hashem, Shin Yongcheol and Smith Richard (2001). "Bounds testing approaches to the analysis of level relationship", *Journal of Applied Econometrics*, Vol. 16, No. 3, pp. 289-326.
- Phillips Peter and Perron Pierre (1992). "Testing for a unit root in time series regression", *Biometrika*, Vol. 75, No. 2, pp. 335-346.
- Ray Edward (1989). "The determinants of foreign direct investment in the United States 1979-85", in: R. Feenstra (Ed.), *Trade Policy for International Competitiveness*, Chicago: University of Chicago Press.
- Swenson Deborah (1994). "Impact of U. S. tax reform on foreign direct investment in the United States", *Journal of Public Economics*, Vol. 54, No. 2, pp. 243-266.
- Udo Eli A. and Obiora Isitua K. (2006). "Determinants of foreign direct investment and economic growth in the West African Monetary Zone: A system equations approach", University of Ibadan.
- Uzun Sevcen (2010). "Indicators of foreign direct investment in Turkey: Effects of membership to EU", Ankara University, Institute of Social Sciences, Ankara.
- Vergil Hasan and Çeştepe Hamza (2006). "Exchange rate variability and foreign direct investment flows: Example of Turkey", *Istanbul University Faculty of Economic Journal*, Vol. 55, No. 1, pp. 976-986.
- Yapraklı Sevdâ (2006). "An econometric analysis on indicators of foreign direct investments in Turkey", *Economics and Administrative Sciences Journal*, Vol. 21, No. 2, pp. 23-48.

Hofstede in Luxembourg

Ursula Schinzel

(United Business Institute, Luxembourg)

Abstract: The purpose of this research is to find out where Luxembourg fits in on Hofstede's cultural dimensions — Individualism, Power Distance, Uncertainty Avoidance, Masculinity, Long-Term Orientation, Indulgence, and Monumentalism — in comparison with France and Germany. The design of the research is the replication of Hofstede's study by using Hofstede's methods: participant observation, interviews and original questionnaire, the values survey module VSM 2008 (Hofstede, 2008). Three hypotheses are offered. This is the first time Hofstede's studies are replicated entirely in Luxembourg, providing 134 filled-in questionnaires and a full set of results for Hofstede's cultural dimensions. The originality of this research lies in the separation into Lux.Nat. (Luxembourg with Luxembourgish nationality) and Luxembourg (including the foreigners), and the data found for Monumentalism. Implications of culture on practices, discussion and implications, future research and references follow.

Key words: international management; Hofstede; cultural dimensions; intercultural comparison; language as identifier; Luxembourg

JEL code: F

1. Introduction

This research investigates Hofstede's seven cultural dimensions Individualism, Power Distance, Uncertainty Avoidance, Masculinity, Long-Term Orientation, Indulgence, and Monumentalism of Luxembourg in comparison with France, Germany, Europe and the world. The purpose is to find out where Luxembourg fits in on Hofstede's cultural dimensions today, with the aim to explain to managers, expatriates, as well as their spouses and family, coming for work to the Grand Duchy of Luxembourg, trying to cope with the cultural and linguistic specificities, especially in the HR domain the impact of these cultural dimensions on (HR) practices in Luxembourg. The design of the research is: (1) literature review on dimensions of culture, (2) Luxembourg, trilingualism and Luxembourgish, (3) replication of Hofstede's study. Hofstede's methods were used: participant observation, interviews and original questionnaire, the values survey module VSM 2008 (Hofstede, 2008), by administering it to employees in one company in Luxembourg, France, Germany, providing 134 filled-in questionnaires to measure the cultural dimensions today and comparing them to Hofstede's data for Luxembourg, France, and Germany. It is important to note that Hofstede only holds estimates for Luxembourg and no data for Monumentalism. Three hypotheses are discussed. The originality of this research lies first in the separation into Lux.Nat. (Luxembourg with Luxembourgish nationality) and Luxembourg (including the foreigners) that replies

Ursula Schinzel, Doctor, United Business Institute; research areas/interests: international business, human resource management.
E-mail: ursula_schinzel@yahoo.com.

to Hofstede's critique, nations are not the best units for studying cultures; and second in the fact that this is the first time Hofstede's studies are replicated entirely in Luxembourg, providing a full set of results for Hofstede's cultural dimensions, as Hofstede bases his research on Luxembourg on estimates. Third, Hofstede holds no data for the cultural dimension Monumentalism in Luxembourg.

2. Literature Review on Dimensions of Culture

Since the late 1960s more intercultural research has been published than ever before. This trend was initiated by Geert Hofstede (1980, 2001) with his meticulous research on culture at IBM worldwide and continued by thousands of replicants. Culture is 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, Masculinity versus Femininity), added a fifth later (Long-term versus Short-term Orientation) and a sixth (Indulgence versus Restraint) and a seventh (Monumentalism). Hofstede brought an end to the era of well-known researchers and their theories. Hofstede (1980) defines culture as the "collective programming of the mind which distinguishes the members of one human group from another". After Hofstede many intercultural studies were started in North-America, the GLOBE by House et al. (2004), Mintzberg (1993), Schwartz (1990), Smith (2002, 2006), Triandis (1995), Schein (2009), just like before Hofstede, but others started in Europe (Trompenaars & Hampden-Turner, 1997), and in Asia (Bond et al., 2004).

The most famous replications are the Chinese Value Survey by Bond et al. (2004), the European Value Survey and the World Value Survey by Inglehart et al. (2008) and Inglehart (2011), and the GLOBE by House et al. (2004). Peter Smith's 2006 article "When elephants fight, the grass gets trampled: the GLOBE and Hofstede projects" is a summary of the exchange of opinions between the GLOBE and Hofstede. Triandis (1995) concentrated his research on the Individualism dimension. Kirkman et al. (2006), Minkov (2011; 2013) and Schinzel (2013) summarize the most important replications.

Geert Hofstede's research has not only been subject to enthusiasm (Triandis, 1982), or to reviews (Smith, 2002) but also to criticism, contestation and controversy (McSweeney, 2002; 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 et al., 2002). The five main criticisms of Hofstede's approach have been enumerated by Hofstede et al. (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 — Lux.Nat. — 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 geographical, economic, historical, and social, as well as some reflections on the linguistic peculiarities of Luxembourgish and

trilingualism, followed by a set of hypotheses.

2.1 Luxembourg, Luxembourgish and Trilingualism

The official designation is Grand Duchy of Luxembourg (Statec, 2013), the only remaining Grand Duchy in the world. The form of government is a representative democracy in the form of a constitutional monarchy, the Chief of State is H.R.H. Grand Duke Henri and the Prime Minister is Xavier Bettel (formerly Jean-Claude Juncker). The territory is 2,586 km² with 549,680 inhabitants on 1st January 2014 (see <http://statec.lu>). On 1st of January 2014, the Luxembourgish population was composed of 300,766 (=54.7%) Luxembourgers and 248,914 (=45.3%) foreigners: 90,764 (=16.5%) are Portuguese, 37,158 (=6.8%) French, 18,773 (=3.42%) Italians, 18,159 (=3.3%) Belgians and 12,659 (=2.3%) Germans. Domestic employment (379,000) is characterized by a high percentage of cross-border workers (156,900 = 41.4%), coming for work during the day from France (20.55%), from Belgium (10.42%), and from Germany (10.43%) (Statec, 2013). Luxembourgers are in good shape and feel healthy. Luxembourg was one of the founding members of the CECA, the Treaty of Rome, EEC, EURATOM and the EU. Schengen, the “Europe without borders”, is a small village in Luxembourg’s Mosel valley. The European Investment Bank, European Union Publications Office, Eurostat, European Investment Fund, Parliament (secretary), Court of Justice, Council (2nd), and Court of Auditors are among the European Institutions in Luxembourg. IPSE (2010) criticizes money laundering, bank secrecy, fiscal criminality and high level of civil servants. The national language is Lëtzebuergesch, administrative languages are French, German and Luxembourgish (Statec, 2013). This tri-lingual situation is founded in the history of Luxembourg’s language(s). Luxembourgers find their identity in both, in their Luxembourgish language and their trilingualism (Fehlen, 2013; Information Press and Service of the Luxembourg Government, 2004, 2008a, 2008b), distinguishing the “in-group” from the “out-group” (Briley et al., 2005; Minkov, 2013; Spizzo, 1995).

2.2 Hypotheses

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. The following three 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.*

Hypothesis 3: Luxembourgers are happy because they use their language(s) as identifier.

3. Methods

Participant Observation. The author participated in many seminars, meetings, fairs as covered participant, taking notes and pictures.

Interviews. The author replicated Hofstede’s original interview with HR managers.

Questionnaires. Hofstede’s (2008) original questionnaire, the values survey module VSM 2008, has been

used to measure his cultural dimensions in Luxembourg, France, and Germany and his original calculation formulas to calculate the means per question.

4. Results

Results from the Participant Observation are: Luxembourg prefers private meetings, in person, has a vivid culture of meetings, conferences, events, and fairs.

Results from the Interviews are: Symbols are: excellence, and ethical behavior. Values are: responsibility, trust, team work, tolerance, respect, quality, and punctuality. Heroes are: the directors and the Grand Ducal family. Rituals are: diverse sport and other events, Christmas party, and get-together events.

Results from the Questionnaires are: Using Hofstede's calculation formulas from the original VSM 2008 questionnaire, the results are shown, — the means — found by the author in Luxembourg, Lux.Nat., France, and Germany by simply adding up all questionnaires' responses and dividing by the number of respondents, to get the mean for all 4 nationalities shown in Tables 1 and 2.

Table 1 Comparison Luxembourg–Lux.Nat.–France–Germany

	Luxembourg	Lux.Nat.	Hofstede's estimates on Luxembourg	France	Hofstede's France	Germany	Hofstede's Germany
PDI	36	29	40	32.5	68	37	35
UAI	97	95	70	28.8	86	67.5	65
IDV	51.5	34	60	41	71	65.5	67
MAS	47	54	50	43.5	43	64.5	66
LTO	69	65	64	37	63	84.5	83
IVR	53.5	55	56	80	48	46	40
MON	10	24	-	31	16.5	6.5	9.9

The results show the differences from Hofstede's estimates. The Lux.Nat. indices diverge from the Luxembourg indices, confirming the difference in culture in PDI, UAI, IDV, MON. Compared to Hofstede's estimates on Luxembourg, the indices are especially different for Uncertainty Avoidance and Individualism-Collectivism. For France, the divergence in data is even more striking, showing a low PDI, alongside with low UAI, low IDV, and low LTO. Germany's data are identical, except for Monumentalism.

Table 2 Lux.Nat. in Comparison

	Lux.Nat.	France	Germany	UK	Belgium FR	Belgium NL	Italy	NL	China	USA	Japan
PDI	29	68	35	35	68	61	50	38	80	40	54
UAI	95	86	65	35	93	97	75	53	30	46	92
IDV	34	71	67	89	71	78	76	80	20	91	46
MAS	54	43	66	66	60	43	70	14	66	62	95
LTO	65	63	83	51	82	82	61	67	87	26	88
IVR	55	48	40	69	57	57	30	68	24	68	42
MON	24	16.5	9.9	35.4	-	-	35.2	11.9	0	57.2	4.0

The results in Table 2 show the cultural difference between Hofstede's estimates and Lux.Nat., Luxembourg (with the foreigners) and France, Germany, UK, Belgium FR, Belgium NL, Italy, the Netherlands, China, USA, and Japan.

The previous two tables show the place that Lux.Nat., Luxembourg, France and Germany hold. Lux.Nat.

score low on PDI (29), low on IDV (34), and high on UAI (95), contrary to Hofstede (40, 60, and 70). France scores low on PDI (32.5), IDV (41), and UAI (28.8), contrary to Hofstede (68, 71, and 86). Germany scores low on PDI (37), high on IDV (65.5) and high on UAI (67.5), unchanged to Hofstede (35, 67 and 67).

The below correlation matrix shows that Luxembourgers are characterized for being long term oriented, they indulge in life, they are uncertainty avoidant, and they are happy.

Table 3 Correlations Among All Variables (N=134)

	PDI	UAI	IDV	MAS	LTO	IVR	MON	HAPPY	GENDER	AGE	EDUCATION
PDI	-										
UAI	-0.021	-									
IDV	0.135	-0.011	-								
MAS	0.206*	-0.060	0.517**	-							
LTO	0.138	0.059	0.030	0.000							
IVR	0.031	0.043	0.318**	0.272**	0.042	-					
MON	0.068	0.023	0.245**	0.129	-0.089	0.244**	-				
HAPPY	0.038	0.160	0.045	0.014	0.268**	0.293**	0.001	-			
GENDER	-0.030	0.073	-0.041	-0.012	0.004	-0.029	-0.105	0.029	-		
AGE	-0.117	0.031	-0.059	0.022	-0.076	0.108	-0.312**	0.040	-0.128	-	
EDUCATION	0.037	-0.155	0.106	0.094	0.119	0.112	0.060	0.082	0.120	-0.025	-
RANK	0.230**	0.210*	-0.001	0.016	0.080	-0.043	0.090	0.006	0.162	-0.490**	-0.084

Note: * p < .05; ** p < .001

5. Implications of Culture on Practices

Lux.Nat. hold a unique position on Hofstede's cultural dimensions. There is no other country in the world like Lux.Nat. with high Collectivism (66) (weak Individualism (34)), low Power Distance (29) and strong Uncertainty Avoidance (95). Contrary to the belief that Luxembourg is culturally close to France and linguistically to Germany, Hofstede's cultural dimensions show the limitations of this.

Power Distance is found low for Lux.Nat. (29), similar to UK (35) and USA (40), different from France (68) and China (80). Luxembourg being small, hierarchy is not felt that much, boss and employees meet in the same sport clubs, supermarkets, bars, and events.

Uncertainty Avoidance is high (95), compared to China (30), UK (35), and USA (46), similar to Japan (92). Lux.Nat. avoid uncertain and unknown situations, a secure, regulated, clear life without surprises is preferred. Lux. Nat. is afraid of any uncertainty. For Lux. Nat. everything must be planned, organized, regulated, restricted and foreseen. Nothing has been left to surprise. They prefer that every day is the same and every year brings the same events with always the same people at the same place and the same procedure. They distinguish themselves from their mighty neighbors Germany, France, Belgium, and they created their own language (Briley et al., 2005; Hong et al., 2000), habits (Spizzo, 1995), and peculiarities (IPSE, 2010; Haag, 2011), that they hold to strongly as if they were their identity savers or their rescue plan (Hermans & Kempen, 1998).

Individualism is low (34), means Collectivism is high (66), compared to USA (91), UK (89). Lux.Nat. are highly collective people preferring the well-being of the group and country to the individual pleasure.

Masculinity is medium (54), compared to UK (66), USA (62), Japan (95), Italy (70). The characteristics of a masculine dominant country (competition and success) and those of a feminine dominant country (caring for others, quality of life) are equally distributed.

Long-Term Orientation is high (65), compared to USA (26), UK (51), but not as high as in Germany (83), and is characterized for foreseen, and planned events and by perseverance and thrift.

Indulgence versus Restraint is medium (55/100), compared to UK (69), USA (68), Italy (30), China (24), Lux.Nat. in general indulge in life, love profiting from the benefits of life, and enjoy life. Concerning the cultural dimensions Indulgence versus Long-Term Orientation, Luxembourg is culturally close to France.

Monumentalism for Lux.Nat. is low (24/100), compared to USA (54.2), UK (35.4), Italy (35.2), but high compared to Germany (9.9), France (16.5) or Japan (4). Lux.Nat. love their national traditions and nationality, the Grand Ducal family, National Day, National Hymn and are living their national identity.

One must genuinely accept and understand the meaning of “Mir wëllebleiwewatmirsinn” (“We want to remain what we are”). If one does not make an effort to integrate into Luxembourg’s specific business culture, success in Luxembourg may never be possible.

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 high scores on 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 quite 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 life 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 that managed not to be at war since Napoleonic times! (<http://geert-hofstede.com/luxembourg.html>).

France scores low on Power Distance (PDI=32.5), low on Individualism (IDV=41), and low on Uncertainty Avoidance (UAI=28.8). France’s divergence from Hofstede’s France is due to the migration background.

Germany is a country whose inhabitants feel threatened by uncertainty and ambiguity, they try to avoid these situations. It has a flat hierarchy and individualistic people who accept that power is distributed unequally.

6. Discussion, Implications and Future Research

This research investigated Hofstede’s dimensions Individualism, Power Distance, Uncertainty Avoidance, Masculinity, Long-Term Orientation, Indulgence Versus Restraint, and Monumentalism of Luxembourg in comparison with France, Germany, Europe and the world. Hofstede’s original research was replicated successfully in Luxembourg, France and Germany.

Hypotheses 1, 2, 3 were confirmed because Luxembourgish nationals score high on ‘Uncertainty-Avoidance’, Collectivism, “Long-Term-Orientation” and “Happiness”, they score low on Power Distance, low on IDV (high on COL), medium on MAS (medium on FEM), high on LTO, high on IVR, high on MON and use their language(s) as identifier. Luxembourg is a multinational, multicultural, multilingual environment; has a vivid culture of meetings, events, fairs, outings, parties, breakfasts, and presentations, all in person; prefers private contacts; traditional HR practices remain mainly unchanged: advertisement, CV screening, contact candidate, interview — after the recruiting: discussion in person, annual performance evaluation, training; HR managers are happy with the current situation, which explains the rejection of change. Luxembourg is a small country, where

the whole world lives and works. It is reluctant to accept any change, historically explained by the aim of defense of their own identity. It has developed its own specific language and culture with the aim to distinguish itself from its neighboring countries.

France scores low on Power Distance and Uncertainty Avoidance, Individualism and Long-Term Orientation, and high on Indulgence and Monumentalism. Germany scores high on Uncertainty, high on Individualism, and low on Power Distance.

In this world, where millions of people communicate via social networking technologies, Facebook, email, mobile phones, the ability to maintain a culture of non-digital social networking is a challenge, but thus far successfully defended in Luxembourg.

Future studies could link cross-cultural research with new media, new technologies, strategies and challenges of global human resource management, communication and with other subjects such as marketing (De Mooij, 2011), with psychology (Leung et al., 2011), and with language research (Lewis, 2006). Future studies could focus on the replication of Hofstede's research, investigating his cultural dimensions PDI, UAI, IDV, MAS, LTO, IVR, MON in more companies in Luxembourg, France, Germany and other European countries — to validate the cultural shift that has happened since Hofstede's initial research in the 1960s (see DeLorenzo et al., 2009) who confirmed the cultural shift of the Slovak Republic. Culture is moving and mixing (Hermans & Kempen, 1998), culture changes over time, and is not fixed and nations are not the best units for studying cultures.

References:

- Bond M. H. et al. (2004). "Culture-level dimensions of social axioms and their correlates across 41 cultures", *Journal of Cross-Cultural Psychology*, Vol. 35, pp. 548-570.
- Briley D. A., Morris M. W. and Simonson I. (2005). "Cultural Chameleons: Biculturals, conformity motives, and decision making", *Journal of Consumer Psychology*, Vol.15, No. 4, pp. 351-362, available online at: <http://works.bepress.com/briley/5/html>.
- DeLorenzo G. J., Kohun F. G., Burčik V. and Skovira R. J. (2009). "A data driven conceptual analysis of globalization — Cultural affects and Hofstedian organizational frames: The Slovak Republic example", *Issues in Informing Science and Information Technology*, Vol. 6, pp. 461-470.
- De Mooij M. (2011). *Consumer Behavior and Culture: Consequences for Global Marketing and Advertising* (2nd ed.), Sage, Thousand Oaks, CA.
- Fehlen F. (2013). "Making Luxembourg: Dreisprachigkeit", Luxemburger Wort, 10 Mai 2013.
- Haag E. (2011). *Une réussite originale. Le Luxembourg au fil des siècles*, Editions Guy Binsfeld, Luxembourg.
- Hermans H. J. M. and Kempen H. J. G. (1998). "Moving cultures: The perilous problems of cultural dichotomies in a globalizing society", *American Psychologist*, Vol. 53, No.10, pp. 1111-1120.
- Hofstede G. (1980). *Culture's Consequences: International Differences in Work Related Values*, Sage, Beverly Hill, CA.
- Hofstede G. (2001). *Culture's Consequences: Comparing Values, Behaviors, Institutions, and Organizations across Nations*, Sage, Thousand Oaks, CA.
- Hofstede G. (2008). "Values survey module 2008", Institute for Research on Intercultural Cooperation, Maastricht, the Netherlands.
- Hofstede G., available online at: <http://www.geerthofstede.nl/html>.
- Hofstede G., Hofstede G. J. and Minkov M. (2010). *Cultures and Organizations: Software of the Mind: Intercultural Cooperation and Its Importance for Survival* (3rd ed.), Mc Graw Hill, New York, NY.
- Hofstede G. J., Pederson P. B. and Hofstede G. (2002). *Exploring Culture: Exercises, Stories and Synthetic Cultures*, Intercultural Press, Yarmouth, ME.
- Hong Y. Y., Morris M. W., Chiu C. Y. and Benet-Martínez V. (2000). "Multicultural minds: A dynamic constructivist approach to culture and cognition", *American Psychologist*, Vol. 55, No. 7, pp. 709-720.
- House R. J., available online at: <http://www.thunderbird.edu/wwwfiles/ms/globe/html>.
- House R. J., Hanges P., Javidan M., Dorfman P. W. and Gupta V. (Eds.) (2004). *Culture, Leadership, and Organizations: The GLOBE Study of 62 Societies*, Sage, Thousand Oaks, CA.

- Information Press and Service of the Luxembourg Government (Ed.) (2004). "About ... major cultural infrastructures", March 2004.
- Information Press and Service of the Luxembourg Government (Ed.) (2008a). "About ... Multicultural Luxembourg", July 2008.
- Information Press and Service of the Luxembourg Government (Ed.) (2008b). "About ... Languages in Luxembourg", September 2008.
- Inglehart R. (2011). "Values change the world: World values survey", Brochure, available online at: <http://www.worldvaluessurvey.org/html>.
- Inglehart R., Foa R., Peterson C. and Welzel C. (2008). "Development, freedom, and rising happiness: A global perspective (1981-2007)", *Perspectives on Psychological Science*, Vol. 3, No. 4, pp. 264-285, available online at: <http://www.worldvaluessurvey.org/html>.
- IPSE (Identités, Politique, Sociétés, Espaces) (Eds.) (2010). *Doing identity in Luxembourg: Subjektive Aneignungen—institutionelle Zuschreibungen—sozio-kulturelle Milieus, Kultur und soziale Praxis*, Transcript Verlag, Bielefeld.
- Kirkman B. L., Lowe K. B. and Gibson C. B. (2006). "A quarter century of culture's consequences", *Journal of International Business Studies*, Vol. 37, pp. 285-320.
- Kuhn T. S. (1970). *The Structure of Scientific Revolutions* (2nd enlarged ed.), Chicago: University of Chicago Press.
- Leung A. K. Y., Chiu C. Y. and Hong Y. Y. (Eds.) (2011). *Cultural Processes: A Social Psychological Perspective*, Cambridge University Press, Cambridge.
- Lewis R. D. (2006). *When Cultures Collide: Leading across Cultures* (3rd ed.), Nicholas Brealey International, Boston, MA, London.
- McSweeney B. (2002). "Hofstede's model of national cultural differences and their consequences: A triumph of faith — A failure of analysis", *Human Relations*, Vol. 55 (January), pp. 89-118.
- Minkov M. (2011). "Cultural differences in a globalizing world", Emerald Group Publishing Limited, United Kingdom, North America, Japan, India, Malaysia, China.
- Minkov M. (2013). *Cross-Cultural Analysis*, Sage, London.
- Mintzberg H. (1993). "The pitfalls of strategic planning", *California Management Review*, Vol. 36, No. 1, pp. 32-47.
- Mintzberg H., available online at: <http://www.mintzberg.org/html>.
- Schein E. H. (2009). *The Corporate Culture Survival Guide*, John Wiley & Sons, San Francisco, CA.
- Schinz U. (2013). *How to Get a Doctorate and More — Distance Learning*, FrielingVerlag, Berlin.
- Schwartz S.H. (1990). "Individualism-collectivism: Critique and proposed refinements", *Journal of Cross-Cultural Psychology*, Vol. 21, pp. 139-157.
- Smith P. B. (2002). "Culture's consequences: something old and something new", *Human Relations*, Vol. 55 No. 1, pp. 119-135.
- Smith P. B. (2006). "When elephants fight, the grass gets trampled: The GLOBE and Hofstede projects", *Journal of International Business Studies*, Vol. 37, pp. 915-921.
- Søndergaard M. (1994). "Hofstede's consequences: A study of reviews, citations and replications", *Organization Studies*, Vol. 15, pp. 447-456.
- Spizzo D. (1995). *La Nation Luxembourgeoise: Genèse et structure d'une identité*, L'Harmattan, Paris.
- Statec Luxembourg (2013). "Luxembourg in figures", Saint Paul, Luxembourg.
- Triandis H. C. (1982). "Review of culture's consequences: International differences in work related values", *Human Organization*, Vol. 41, pp. 86-90.
- Triandis H. C. (1995). *Individualism & Collectivism*, Westmore Boulder, CO.
- Trompenaars F. and Hampden-Turner C. (1997). *Riding the Waves of Culture: Understanding Cultural Diversity in Business* (2nd ed.), Nicholas Brealey International, Boston, MA, London.

Change the Way Training is Done: Train Me on What I Want to Know

Kristi Dean

(Central Michigan University, Global Campus, MI 48037, USA)

Abstract: Is the business environment training their workforce to become leaner and more competitive? Organizations send their employees off site for training in applications that are not specific to the employees' actual day to day operations. Often training of this type results in the employee not being able to apply what they have learned. Corporate training should think about shifting their paradigm from instructor led textbook training to personalized programs with employee centered training. Instead of sending the employee to an offsite location to be trained on widgets, bring the trainer on site and develop customized training material centered on the employee actual needs. Colleges and universities cannot keep up with the ever-changing advancements in technology or adapt their curriculum quickly enough to keep in line with the needs of the students. Consequently employees struggle with understanding how to apply what they have learned to complete daily work projects. How will the employee be able to apply the training into functional work processes?

Key words: training, customized training programs, employee centered training, education, business technology

JEL code: I25, A2

The business environment has created pressure on corporations to become leaner and more competitive while working with fewer resources (Kanazawa, 2009). To become a leaner organization, Kanazawa (2009) argues that the organization needs to retract to the core of its business as it becomes leaner and more competitive. The human resources of the organization need to work diligently to improve their productivity as the economy scales down. Downsizing generally results in fewer employees as well as products while workloads may increase due to a need for greater control of costs. Organizations are affected by the boardroom's decisions. In the business environment, organizations need to stop talking about what they need to do and instead start doing it. The ability to quickly adjust to changing market place dynamics is crucial for the survival and success of an organization. Doing more with less often means automating business tasks using Information Technology (IT) based solutions. Organizations today need to embrace the decisions made in the boardroom and begin implementing those decisions thus "walking the talk and talking the walk" (Rushton, 2009).

Bringing in new technology, however, is not a cure-all. It does not always mean that an organization can do more with less. As Kanazawa (2009) pointed out, doing more with less often means automating business tasks using Information Technology (IT) based solutions. It is the automation of the tasks that support the organization that will help IT based solutions do more with less. Determining what those tasks are is a fundamental step in the

process of automation and improved efficiencies. A corporate atmosphere that supports the discovery of opportunities for automation encourages employees to participate in the discovery of tasks ripe for automation.

Failure arises when organizations do not properly prioritize, allocate and invest the proper resources to support the right priorities. The skill set of the employees must be correct in order to identify opportunities and apply the new tools brought in by IT solutions. This will position the employees with the appropriate skill sets to be productive in their jobs. Rushton (2009) argues that not all organizations are immune to those expectations of becoming leaner and more competitive this is why organizations are in business to be competitive. It does not always mean that an organization can do more with less; this is why Kanazawa's theory often failed. The foundation of the projects often seemed to lack a fundamental foundation (Kanazawa, 2009). As Kanazawa's (2009) theory predicated that management did not put the right people with the needed skills set in the correct position. The author has experienced this mis-appropriation of resources personally as resources are put into positions which they have no idea of the business or the business rules that the organization has come to adapt into their day to day activities.

Organizations and employees need to take a holistic view of the entire project. When the focus is too narrow, the organization and human resources within the organization, only see a small piece of the puzzle and not the whole picture and how the smaller pieces interact. The employees generally do not understand how the ramifications of the organization's decisions will trickle down through the departments. Rushton (2009) argues that if the organization does not have strong leadership that understands both the technology and the business side, the cure-all solution will fail (Rushton, 2009). Once the technology is implemented, the workforce will then need to be trained on how to use the technology while the organization is trying to become leaner and more competitive. Thang and Buyens (2008) argued that training workers within their own organization resulted in more engaged employees who more readily applied the new technology. Customizing the training that is offered to the organization as Thang and Buyens (2008) argue would reduce cost of training, as the employee would see the benefit of training and understand how it could apply to their current position.

Corporate training should think about changing their paradigm from instructor-led base training to customizing their training programs to employee- centered training. This would be instead of sending the employee to an offsite location to be trained on widgets, bring the trainer on site and develop customized training material centered on the employee.

As we all know, colleges and universities cannot keep up with the ever-changing advances in technology to adapt their curriculum fast enough to keep in line with the needs of the students. As Michael Martinez noted in The Detroit News article on September 24, 2013 that Damien Rocchi noted (2013), "If you talk to employers, they're desperate for talent, Universities aren't teaching skills employers are looking for." This is where corporate training can fill a gap and create training that is specific to the needs of the corporation. This allows the students/employees to immediately apply new skills to relevant tasks.

Formalized training has value in that it creates a foundation of knowledge to be leveraged for more specific applications. Unfortunately, it does not touch the core questions that the employees have. How will they be able to apply the training into functional work processes? Employees go to a training course away from their environment and are given a manual that does not apply the training to their job functions and an instructor who does not understand their business. The employee has to not only absorb what the instructor is saying but also interpret and understand how it will apply to their work environment. This is an extremely difficult task, to take a newly gained skill and apply to an existing process efficiently; on their own. Generally do that application with no additional

support from the instructors or experts of the new technology.

There is also a difference between learning and training, however training can be learning. Learning is defined by the Merriam-Webster Dictionary as “The act or experience of one that learns” while training is defined as “The act, process, or method of one that trains.” (<http://www.merriam-webster.com/dictionary/learning>). If you are able to learn what you are being trained, then you are better able to use and apply your new skills.

Higher education also can gain from these training objectives as of September 4, 2013, the Big Dog & Little Dog’s Performance Juxtaposition listed on its website, according to Keller (1968). The course is set up with a “go-at-your-own-pace feature, which permits a student to move through the course at a speed commensurate with his ability and other demands upon his time.” This course was taken during his education from a course he took at Arizona State University. It featured self-paced modules where the student could work at their own pace and could manage their time during the semester.

Recently, while teaching a technology course in China the author was able to apply the principles that are used in the United States in teaching higher education courses. The focus was on making the courses highly interactive, student-centered versus teacher-centered. The lecture base was changed so that the content was briefly discussed and then students were asked to apply the concepts through exercises in their book and think about how they would apply these lessons outside of the classroom. Even though these students have not had the opportunity to experience work life, it was a consistently asking them to think about the day that they would. After returning from China one of the students did in fact obtain a position where she needed to produce data and she created a pivot table as she learned this in class, she emailed me to see how she could make it better. This is how you can apply concepts through exercises in the book to apply outside of the classroom.

Students were asked what a normal course would be like in their current curriculums. The students explained that in a typical class, a professor would lecture to them for the entire class time allowing for no questions or interaction. The students’ initial reaction to the interaction with me was surprise and hesitant excitement. The author’s classroom methodology used the material in the chapter, and then selected a book that was current and was tailored toward business, a field which many of the students were aiming their careers towards. In an email message to the author on December 7, 2013, Yiluyi Zeng wrote:

“Contrary to traditional instructors, standing on the stage telling students what to do and what not to do, you are more like a mentor and friend to students. In your class, students have learned study is no longer a nightmare but instead it is something we can enjoy.

The course Decision Supporting System-you taught was condensed into one month. Usually students would suffer a lot of pressure from courses that only last one month. But you offer a brand-new experience to us and redefine the meaning of study.

In the class, you let students positively participate in the process of learning. Even small actions will make students feel they are involved, for instance, asking students typing their names on the computer on the stage when giving an example of making decisions. By using cases that related to students, it draws our attention and increases our interests in learning how to apply the knowledge in real world, especially at work.”

As a personal reflection over the past five years, training has been put on the back burner within the organization that this author has had experience with. The Business Intelligence department has provided the department with a training program for new technology that it is using for data extraction. The technology is slow and does not respond very quickly to users trying to use the tool to extract data. The department was invited to an outside vendor to be shown how to use the tool. On site at the vendors’ location, the training materials were designed to learn about widgets instead of the business needs. After an entire day doing examples of small and

simple functions, fellow workers returned to work and found that the canned simple examples did not associate with the business practices. As days go by, the tool and skills gained are not being used thus the training has been forgotten and has become useless.

The trainer should have come to the organization and trained the employees on their data with customized training to show the department what was wanted or needed to learn and how to apply it to specific tasks. The employees were not able to take the generic training and transfer that newly gained knowledge of that tool to their jobs. To address the training's shortcoming, as the author set up a training program within my department and had approximately ten employees attend the course. The course was a four-week program for three hours on one day each week. Each employee had a different reason why they were there. The author interviewed each one and asked what they wanted to gain from the experience. The initial training was standardized to build foundational skills but as the weeks went by, the author customized it to the employees' needs. This resulted in the employees being more engaged and excited about how their new skills would have a positive impact on their current tasks. As the skills were developed and applied, the students were able to see where additional applications of this new skill could be applied. This increased their acceptance of the new skills and expanded the applications to additional areas where the new skills and tools could be applied. At the end of the training program, both the students and the areas they worked and deemed the training as a success.

Three months after the training program, the employees had not only retained the knowledge learned but had applied what they had learned. This in turn led them to spread the word to other employees on how successful their training sessions were. It was a very successful program, and our Corporate Education department was approached about including this training methodology for other classes and employees. The offer was rebuffed as the author was told that the corporate training was an outside vendor and that the employees have to go off site to be trained.

This is a classic example of a current corporate environment and how some corporations continue to do the familiar processes versus changing or improving methodologies. Internal training programs require a different skill set from the training department's staff. The skill set would require engaged and knowledgeable instructors versus staff people who select vendors.

Change the way training is done and train me on what I want to know. Education is all about how it applies to you. Not what the trainer or the instructor knows, this is why you enter the training or classroom, is to learn. You want to learn how to apply the skills to your current position or a future job opportunity.

References:

- Keller Fred (1968). "Good bye teacher", *Journal of Applied Behavior Analysis*, A Big Dog Little Dog and Knowledge Jump Production. "Learning and Training: Statistics and Myths How Effective is Training? Last modified November 22, 2010. <http://www.nwlink.com/~donclark/hrd/trainsta.html>.
- Kanazawa Michael T. (2009). "Doing more on less", *Leadership Excellence*, Vol. 26, No. 1, p. 11.
- Martinez Michael (2013). "Disconnect between computer skills, jobs grows Metro Detroit firms scramble to train tech workers", *The Detroit News*, September 24, 2013, accessed September 24, 2013, available online at: <http://www.detroitnews.com/article/20130924/BIZ/309240032/Metro-Detroit-firms-scramble-to-train-tech-workers>.
- Rushton Mark (2009). "Innovation: Changing the game", *PPI*, Vol. 51, No. 1, pp. 29-31.
- Thang Nguyen Ngoc and Buyens Dirk (2008). "Training, organizational strategy and firm Performance", *The Business Review*, Vol. 11, pp. 2-8.
- Yiluyi Zeng (2013). "E-mail message to author", December 7.

An Analysis of Total Factor Productivity, Factor demand, and Profit of India's Agriculture^{*}

Sharmistha Nag¹, Debarpita Roy², Laxmi Joshi³, P. C. Parida⁴, Hari K. Nagarajan⁵

(1. Fairleigh Dickinson University, Canada; 2. Amity University, India;

3. National Council of Applied Economic Research, India;

4. Institute of Applied Manpower Research (IAMR), India;

5. Rural Economics Institute of Rural Management, India)

Abstract: In 2012-2013 the share of agriculture and allied activities declined to about 13.7 percent of India's GDP¹. Due to rising competition in international markets and increasing costs of production, sustaining efficiency in farm production necessitates estimation of both technical and economic efficiencies. In this paper, we examine India's agrarian performance in terms of restricted profit functions and factor demand equations, using village-level panel data for years 1999 and 2006. We also attempt to decompose output growth between the two periods into technical progress, technical efficiency, and input growth using a translog production function following Kalirajan, Obowa and Zhao (1996) to examine whether output growth was input-driven or technology driven. The decomposition analysis is important from a policy perspective to understand whether the given technology has been applied to its full potential. We find that the technical change between 1999 and 2006 has been negative, while the technological progress is positive, therefore we can infer that full potential of technological change between 1999 and 2006 could not be leveraged due to the decline in technical efficiencies. To fully leverage the same, policy prescriptions should target increasing farm level technical efficiencies.

Key words: agriculture; factor demand; total factor productivity growth; technical efficiency

JEL codes: Q1, D24, P27, O13

1. Introduction

Agriculture plays an important role in the process of economic development of less developed countries like India. Besides providing food to the nation, agriculture is the main source of rural livelihood, absorbs large unskilled labourers, generates savings, contributes to the market for industrial goods, expands international trade

^{*} This paper is part of the IDRC–NCAER research program on “Building Policy Research Capacity for Rural Governance and Growth in India” (grant number 105223). The findings, interpretations and conclusions expressed here are those of the authors and do not necessarily reflect the views of NCAER or its Governing Body. (Grant number 105223).

Sharmistha Nag, Assistant Professor, Fairleigh Dickinson University; research areas/interests: microeconomics, development economics. E-mail: sharmistha.nag@gmail.com.

Debarpita Roy, Assistant Professor, Amity University; research areas/interests: development economics, macroeconomics.

Laxmi Joshi, Associate Fellow, National Council of Applied Economic Research, research areas/interests: macroeconomics.

P. C. Parida, Director, Institute of Applied Manpower Research (IAMR); research interests: macroeconomics.

Hari K. Nagarajan, Dr, Professor and RBI Chair, Institute of Rural Management; research areas/interests: development economics.

¹ The Economic Times, August 2013.

and earns foreign exchange reserves. Agricultural development is an integral part of overall economic development. In India, agriculture was the main source of national income and occupation at the time of Independence. Agriculture and allied activities contributed nearly 50 percent to India's national income. About 72 percent of total working population was engaged in agriculture. These confirm that Indian economy was basically an agriculture based economy at the time of Independence. After 61 years of Independence, the share of agriculture in total national income declined from 50 percent in 1950 to 18 percent in 2007-08, although in recent times more than 60 percent of workforce is engaged in agriculture (Nerkel et al., 2013). In spite of this, agriculture plays a significant role in the performance of other sectors of the economy and therefore continues to be a dominant sector of the Indian Economy.

Since independence Indian agriculture has made considerable progress. Agriculture, which grew at the rate of about 1 percent per annum during the fifty years before Independence, has grown at the rate of about 2.6 percent per annum in the post-Independence era (Tripathi et al., 2009). The annual growth rate of agriculture rose sharply during the period 1981-82 to 1990-91 and decelerated during the period 1950-51 to 1970s (Mohan, 2008). Expansion of land was the main source of growth in the period of fifties and sixties following which the contribution of greater land area under agricultural production has declined over time and increase in productivity became the main source of growth in agricultural production. For all crops, the annual rate of growth of productivity per hectare rose from 2.07 percent in mid 1980s to 2.51 during mid 1990s (Mahadevan, 2003).

Since productivity has been the key source of agricultural growth in India during the last two decades, it is important to review some of the findings of previous studies related to productivity growth of Indian agriculture.

Dholakia and Dholakia (1993) estimate the sources of Indian agriculture for three sub-periods during 1950-51 to 1988-89. They also study the contribution of adverse weather conditions and intensity of resource use to total factor productivity growth. The study finds that any policy changes which affects the use of modern agricultural inputs directly or indirectly would have a bearing on total factor productivity (TFP) growth and hence on growth performance. The important inputs which have a strong indirect influence on other general inputs like land, labour and capital and hence overall TFP growth are irrigation, fertiliser, and high yield varieties of seeds. The study concludes that traditional inputs such as land, labour and capital have no strong impact on TFP growth in Indian agriculture rather modern inputs like HYV seeds, fertiliser and irrigation have successfully raised the TFP growth rate.

A study by Rosegrant and Evenson (1995) examine the total factor productivity of Indian agriculture based on primary data of 271 districts covering 13 states in India during 1956-87. The study computed Tornqvist-Theil index for measuring the total factor productivity. The study finds that substantial productivity gains have been realized in India's agriculture. These gains have varied in different periods, being highest in the green-revolution period. Further, the study finds that total factor productivity growth has contributed roughly 1.1 percent per year to crop production growth in India.

Tripathi and Prasad (2008) examine the impact of some production variables (input) on the agricultural productivity growth (output) in India from 1969-70 to 2005-06 using Cobb-Douglas (C-D) model. The study finds that labour, capital and land significantly impacted agricultural productivity growth. In another paper, Tripathi (2009) examines the performance of agricultural productivity in India during the last 37 years. Using the arithmetic index for measuring TFP, they find that between 1969 and 2005, agricultural growth relied almost entirely on increased in conventional factors while growth in productivity was negative. For only initial periods of reforms, agricultural TFP growth is positive.

One of the pioneer studies on productivity analysis by Kalirajan and Shand (1997) identifies various sources of agriculture growth in India during the pre-reforms period. The study uses state level data of 15 major states for the period 1980 to 1990. Using a C-D function, the study finds that TFP was negative in 4 out of 15 states. The contribution of technology to output growth declined substantially between 1988 and 1990. The improvement of technical efficiency was also slow during the study period. Therefore, the study emphasised that there is need of more investment and innovation in R&D to improve the technical efficiency and progress, which will foster the agriculture growth in the long run.

In a more recent study Shanmugam and Soundararajan (2008) examine the source of agriculture output changes in 15 major states in India for the period 1994-95 to 2003-04. The study mentions that there could be three possible reasons of output changes such as input growth, technical progress and improvement in technical efficiency. Using the random coefficients frontier production function model, the study finds that the efficiency has declined over time for all the states and the average technical efficiency is only 72 percent. The study infers that the potential output can be increased by another 28 percent without increasing inputs. Authors find that in most of the states, the resulting growth was from higher input usage.

To sum up, the above review of previous studies suggest that technical progress and technical efficiency are two important factors that influence agriculture growth in India. The link of input driven growth is weak, therefore necessitates more emphasis on technical efficiency and progress to sustain agriculture growth in the long run. The present study re-examines the same issue using the translog production function. In addition to TFP, the study also estimates profit and factor demand functions for agriculture sector. The analysis of the study is based on a wide range of primary survey data collected at the household level in India. The objectives of the study are:

- (1) To estimate a translog profit function of Indian agriculture for the year 2006.
- (2) To estimate factor demand function of agriculture for the year 2006.
- (3) To infer whether output growth between 1999 and 2006 is technology driven or input driven by estimating technical efficiencies, technological progress and input growth, using the pooled data.

The paper is organized as follows: Section II discusses the data, Section III gives the estimation methodology, Section IV presents the empirical results, Section V discusses decomposition of output change between two time periods (1999 and 2006), and Section VI concludes.

2. Data Description

The research project makes use of the rural household data as compiled under the Additional Rural Incomes Survey (ARIS) and Rural Economic and Demographic Survey (REDS). The ARIS/REDS data sets form a village and household data base providing information on sample villages spread across various states in India, collected in four rounds conducted between the years 1971 and 2006. These data sets allow us to analyze the various micro characteristics of these households and their interaction with a range of environments (village, district, state, and the entire country). In addition to this, the panel nature of these data sets enables us to understand both the evolution of policy as well as trace the impact of different policy regimes on household. Moreover, they document the changes in terms of the entire gamut of economic, socio-economic and demographic parameters that have occurred in the rural population of India over the last three decades. They also permit in-depth analyses of the determinants of these changes and, in particular, illuminate the role of agricultural progress in shaping rural life.

The first round of the survey for which complete village and household information is available is the 1971 round of the ARIS. In 1982, 250 of the original 259 villages were revisited (the state of Assam was excluded due to local political disturbances rendering survey activity impossible) and 4979 surveyed, approximately two-thirds of which were the same as in 1971. In 1999, all of the 1971 villages were surveyed, excluding the 8 sample villages from Jammu and Kashmir (again, owing to problems of local insurgency). In this survey round, all of the surviving households in the 1982 survey were surveyed again, including all split-off households residing in the same village, plus a small random sample of new households. Because of household divisions and the new sample design incorporating all village-resident male household members surveyed in the 1982 round, the number of households in the 1999 round increased to 7474. The current round of 2006 (agricultural season 2005-2006) has a sample size of 9500 and includes all of the households surveyed in 1999 and the split-off households residing within these villages. Each village has approximately 8 new randomly selected households. Each round of the survey has three components: listing questionnaire, village questionnaire, and the household questionnaire. For the present analysis we are using the household data collected for years 1999 and 2006 through the household questionnaire. The household survey provided information on assets and incomes, by source, and agricultural inputs and outputs at the household level. In addition to these, there is information on household member characteristics, including educational attainment, school enrolment, and work participation as well as detailed current and retrospective information on participation in governance, impact of conflicts, and, social relations.

The variables from the two rounds that we have used for our analysis are total farm level output, total farm level cost, input (land, labor, fertiliser and machinery) quantities and prices, level of education of the household head — illiterate, primary, secondary, high secondary, under-graduate and post graduate — and finally household size. In our SUR model, we use labor, fertiliser and machinery as the three inputs and in the frontier analysis we replace machinery by land (fixed input).

For the SUR estimation and the frontier analysis we use the panel data consisting of 11770 observations spread across 241 villages of India.

3. Methodology

We estimate a translog profit function with factor demand equations for labor, machinery and fertilizers using seemingly Unrelated Regression estimation method (SURE). Hence we estimate a system of three equations — profit function, labor share, and machinery share-using SUR. The factor share equations are derived from the first order profit maximizing conditions. We estimate the system using one less equation. Here we drop the fertilizer share equation from the system.

In SUR method we assume contemporaneous correlations. That is, the equations are correlated through the error terms. Hence we use a generalized least square (GLS) estimation method. The GLS applies to the stacked model consisting of several equations. We could specify the SUR system as:

$$\begin{aligned} \mathbf{Y}_1 &= \mathbf{X}_1 \boldsymbol{\beta}_1 + \boldsymbol{\varepsilon}_1 \\ \mathbf{Y}_2 &= \mathbf{X}_2 \boldsymbol{\beta}_2 + \boldsymbol{\varepsilon}_2 \\ \mathbf{Y}_m &= \mathbf{X}_m \boldsymbol{\beta}_m + \boldsymbol{\varepsilon}_m \end{aligned}$$

In matrix notation:

$$\begin{bmatrix} Y_1 \\ Y_2 \\ \vdots \\ Y_m \end{bmatrix} = \begin{bmatrix} X_1 & 0 & \dots & 0 \\ 0 & X_2 & \dots & 0 \\ \vdots & \vdots & \ddots & \vdots \\ 0 & 0 & \dots & X_m \end{bmatrix} \begin{bmatrix} \beta_1 \\ \beta_2 \\ \vdots \\ \beta_m \end{bmatrix} + \begin{bmatrix} \varepsilon_1 \\ \varepsilon_2 \\ \vdots \\ \varepsilon_m \end{bmatrix} \text{ where } m = \text{number of equations}$$

The variance-covariance matrix in the above system of equations is given by Ω where:

$$\Sigma = \begin{bmatrix} \sigma_{11} & \sigma_{12} & \sigma_{1m} \\ \sigma_{21} & \sigma_{22} & \sigma_{2m} \\ \vdots & \vdots & \vdots \\ \sigma_{m1} & \sigma_{m2} & \sigma_{mm} \end{bmatrix} \text{ and } \Omega = \Sigma \otimes \mathbf{I} \text{ where } \mathbf{I} = \text{identity matrix.}$$

That is, in SUR we assume, $E(\varepsilon_i \varepsilon_j | X_1, X_2, \dots, X_m) = \sigma_{ij}$ or $E(\varepsilon \varepsilon' | X_1, X_2, \dots, X_m) = \Omega$. The GLS estimator is:

$$\hat{\beta}_{GLS} = [X' \Omega^{-1} X]^{-1} X' \Omega^{-1} Y$$

The greater the correlation between the disturbances, the greater is the efficiency gain accruing to GLS.

Our translog profit function with the factor demand equations can be represented by the following equations:

$$\ln \pi = a_0 + \beta_p \ln P + \beta_w \ln w + \beta_r \ln r + \beta_f \ln f + \frac{1}{2} [\gamma_w (\ln(w))^2 + \gamma_r (\ln(r))^2 + \gamma_f (\ln(f))^2] + \quad (1)$$

$$\frac{1}{2} [\gamma_{wr} \ln w \cdot \ln r + \gamma_{rf} \ln r \cdot \ln f + \gamma_{wf} \ln w \cdot \ln f] + \lambda_h hh + \lambda_{ed} \mathbf{ED}$$

$$\frac{\partial \pi}{\partial w} = \frac{wL}{\pi} = a_1 + \beta_w + \gamma_w \ln(w) + \gamma_{wr} \ln(r) + \gamma_{wf} \ln(f) + \lambda_h hh + \lambda_{ed} \mathbf{ED} \quad (2)$$

$$\frac{\partial \pi}{\partial r} = \frac{rM}{\pi} = a_2 + \beta_r + \gamma_r \ln(r) + \gamma_{wr} \ln(w) + \gamma_{rf} \ln(f) + \lambda_h hh + \lambda_{ed} \mathbf{ED} \quad (3)$$

$$\frac{\partial \pi}{\partial f} = \frac{fF}{\pi} = a_3 + \beta_f + \gamma_f \ln(f) + \gamma_{wf} \ln(w) + \gamma_{rf} \ln(r) + \lambda_h hh + \lambda_{ed} \mathbf{ED} \quad (4)$$

Where Equation (1) is the translog profit function, Equations (2), (3), and (4), respectively, are the factor demand equations for labor (L), machinery (M) and fertilizer (F). P is the output price, w is the price of labor, r is the price of machinery, and f is the price of fertilizer. First order conditions of profit maximization from Equation (1) yields the factor demand equations where Equation (2) is the share of labor in total profit, Equation (3) represents share of machinery in total profit and Equation (4) shows share of fertilizer in total profit, hh representing household size and \mathbf{ED} representing education dummies are used as the controls in the equations.

We start with estimating an iterative SUR system followed by a 3SLS system, where the latter gives the most efficient estimates.

In the next section of the paper, we estimate technical efficiency, by considering a production function,

$$y_{it} = f(x_{it}) \exp(-u_{it}), \quad 0 < u_{it} < \infty \quad (5)$$

Where y_{it} is the observed (actual) output produced by the i^{th} firm in period t while x_{it} is the vector of inputs used in the production process, $f(\cdot)$ is the frontier production function and u_{it} is the non-negative residual term following $N(0, \sigma_u^2)$. u_{it} is zero if the production unit produces the potential output (technically efficient) and is less than zero when production is below the frontier (technically inefficient). A measure of technical efficiency of the i^{th} firm in t^{th} period can be expressed as the ratio of the observed (y_{it}) to the potential output [$f(\cdot)$] level. The

firm's objective is to maximize profit, for which knowledge of the appropriate input-output technical relationship is necessary. Therefore, it is important to examine whether "firms are able to apply the technical aspects of production successfully". Therefore, the technical efficiency (TE) measure can be expressed by (using Equation 5),

$$TE = \frac{y_{it}}{f(x_{it})} = \exp(-u_{it}) \quad (6)$$

In India economic reforms took place in the 90s, which influenced the agricultural sector with varying degrees of intensity through newly available technology. The level of improvement in technical efficiency will vary across firms. TE takes a value within the interval (0, 1), where 1 indicates a fully efficient firm. The potential (maximum possible) output may vary across firms depending upon their knowledge and capability of technology diffusion.

4. Results

Tables 1-3 show the translog profit function estimates with factor demand equations for labor and machinery using iterative SUR. Tables 4-6 show the 3 stage least square estimates with the same system of equations. We estimate the equations imposing the appropriate symmetry and linear homogeneity restrictions. The coefficient estimates in the iterative SUR and 3 SLS models turn out to be quite close.

We cannot interpret the coefficient estimates of the profit function as it is defined as a translog functional form unlike in a Cobb-Douglas form. However, we can interpret the household size and educational dummies from Tables 1 and 4. We find that as household size increases, profit increases because more members in a household contribute to farming activities thus raising farming profitability, *ceteris paribus*. We also find that as one receives more education, agricultural profit goes up. Our results find support from previous evidence that farmers' education levels influence their efficiency (Idiong, 2007). This is because advanced knowledge translates into better use of farming techniques and therefore higher profits. We find that profit peaks at the graduate level. The coefficient on the postgraduate dummy, although significant, is less than the graduate dummy, which implies that at the post graduate level fewer household members contribute to farming activities, thus generating lower profits, all other variables held constant.

The labor share equations (Tables 2 and 5) show positive coefficients on machinery and fertilizer prices, which imply that as the price of each of these inputs rise, they are substituted for labor. Therefore, as labor demand rises, the share of labor in total profits goes up. The machinery share equations (Tables 3 and 6) show a similar trend. Household size reduces factor shares. A rise in household size could be due to child births in families which raise the number of dependents and at the same time larger family size could mean people from the same family employed in farming activities, such as a farmer employing his children where the latter are unpaid laborers. Therefore, larger household sizes could lead to a decline in factor shares. Finally we find that as one's education level rises, his share in the total profit drops, implying that with higher education individuals switch from the agricultural sector, hence their returns from farming decline.

Results from estimation of Equations (1)–(3) are shown in the tables below [we drop Equation (4) from the SUR estimation]

Table 1 Estimates of Profit Function Using Iterative SUR

Variable name	Parameter	Coefficient	t-ratio
Price of output	β_p	0.349*	-0.07
Price of labor	β_w	-1.42	-0.30
Price of machinery	β_r	-0.22*	-0.02
Price of fertilizer	β_f	-1.43*	-0.22
Square of labor	γ_w	0.30*	-0.04
Square of machinery	γ_r	-0.08*	-0.01
Square of fertilizer	γ_f	0.05	0.07
Labor*fertilizer	γ_{wf}	0.01	0.07
Labor*machinery	γ_{wr}	0.00	0.03
Machinery*fertilizer	γ_{rf}	0.28*	0.05
Household size	λ_{hh}	0.18*	0.03
Primary	λ_p	0.58*	0.22
Secondary	λ_s	0.67*	0.20
Higher secondary	λ_{hs}	0.95*	-0.31
Graduate	λ_g	1.40*	-0.32
Post graduate	λ_{pg}	1.17*	-0.60
Constant	a_0	10.35*	-0.34

Note: *** = Significant at 1%, ** = Significant at 5 %, * = Significant at 10 %. We use no education as the base dummy.

Table 2 Estimates of Factor Demand Equation for Labor

Variable name	Parameter	Coefficient	t-ratio
Price of labor	β_w	1.41*	0.03
Price of machinery	β_r	0.21*	0.03
Price of fertilizer	β_f	1.20*	0.04
Household size	λ_{hh}	0.10*	-0.01
Primary	λ_p	-0.25**	-0.14
Secondary	λ_s	-0.37**	-0.12
Higher secondary	λ_{hs}	-0.65*	-0.19
Graduate	λ_g	-0.75*	-0.20
Post graduate	λ_{pg}	-0.54	-0.38
Constant	a_1	1.42*	0.03

Note: *** = Significant at 1%, ** = Significant at 5 %, * = Significant at 10 %. We use no education as the base dummy.

Table 3 Estimates of Factor Demand Equation for Machinery

Variable name	Parameter	Coefficient	t-ratio
Price of labor	β_w	0.02*	0.02
Price of machinery	β_r	-0.22	-0.13
Price of fertilizer	β_f	0.24*	0.02
Household size	λ_{hh}	-0.02*	-0.01
Primary	λ_p	-0.11	-0.07
Secondary	λ_s	-0.14*	-0.07
Higher secondary	λ_{hs}	-0.21*	-0.10
Graduate	λ_g	-0.19***	-0.11
Post graduate	λ_{pg}	0.13	-0.22
Constant	a_2	-0.22	-0.02

Note: *** = Significant at 1%, ** = Significant at 5 %, * = Significant at 10 %. We use no education as the base dummy.

Table 4 SUR Estimates of Profit Function Using 3SLS

Variable name	Parameter	Coefficient	t-ratio
Price of output	β_p	0.49*	-0.08
Price of labor	β_w	-1.41*	-0.30
Price of machinery	β_r	-0.22*	-0.02
Price of fertilizer	β_f	-0.74*	0.24
Square of labor price	γ_w	0.32*	0.04
Square of machinery price	γ_r	-0.07*	-0.01
Square of fertilizer price	γ_f	0.04**	0.07
Labor*fertilizer	γ_{wf}	-0.02	-0.08
Labor*machinery	γ_{wr}	0.04	0.03
Machinery*fertilizer	γ_{rf}	0.30*	0.05
Household size	λ_{hh}	0.14*	0.03
Primary	λ_p	0.41*	0.20
Secondary	λ_s	0.51*	0.02
Higher secondary	λ_{hs}	0.74*	0.27
Graduate	λ_g	1.12*	0.29
Post graduate	λ_{pg}	0.89***	0.52
Constant	a_0	9.12*	0.38

Note: *** = Significant at 1%, ** = Significant at 5 %, * = Significant at 10 %. We use no education as the base dummy.

Table 5 Estimates of Factor Demand Equation for Labor

Variable name	Parameter	Coefficient	t-ratio
Price of labor	β_w	1.41	0.30
Price of machinery	β_r	0.22*	0.03
Price of fertilizer	β_f	1.19*	0.04
Household size	λ_{hh}	-0.10*	0.01
Primary	λ_p	-0.25**	-0.14
Secondary	λ_s	-0.36**	-0.12
Higher secondary	λ_{hs}	-0.64*	-0.19
Graduate	λ_g	-0.74*	-0.20
Post graduate	λ_{pg}	-0.54	-0.38
Constant	a_1	-1.41*	-0.03

Note: *** = Significant at 1%, ** = Significant at 5 %, * = Significant at 10 %. We use no education as the base dummy.

Table 6 Estimates of Factor Demand Equation for Machinery

Variable name	Parameter	Coefficient	t-ratio
Price of labor	β_w	0.02*	0.02
Price of machinery	β_r	0.22	0.10
Price of fertilizer	β_f	0.24*	0.02
Household size	λ_{hh}	-0.02*	-0.01
Primary	λ_p	-0.10	-0.07
Secondary	λ_s	-0.14*	-0.07
Higher secondary	λ_{hs}	-0.21*	-0.10
Graduate	λ_g	-0.18***	-0.11
Post graduate	λ_{pg}	0.13	0.21
Constant	a_2	0.22*	0.02

Note: *** = Significant at 1%, ** = Significant at 5 %, * = Significant at 10 %. We use no education as the base dummy.

5. Decomposition of Output Change between Two Time Periods

Now we come to the next part of our analysis-decomposing the change in output for a production unit across two periods into input growth, technical change/progress, and technical efficiency change/improvement. The data sets harnessed for this exercise are the ARIS/REDS 1999 and 2006 rounds. In the first section, the theoretical basis of this decomposition is explained, and the second section presents the findings from the data.

5.1 Theoretical Background

The following analysis describes this decomposition. In doing so, we follow Kalirajan, Obwona, Zhao's (1996) decomposition methodology.

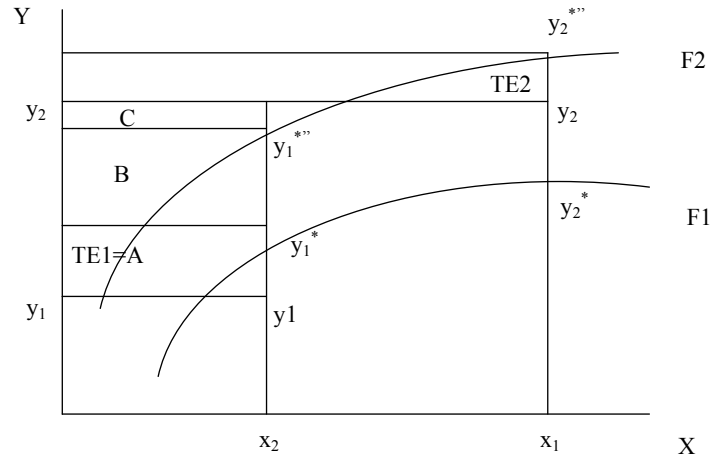


Figure 1² Decomposition Methodology

The above figure illustrates the decomposition of total output growth into input growth, technical progress, and technical efficiency improvement for a production unit/firm. If the firm is technically efficient it would be operating on the production frontier. In this case the firm faces production frontiers F1 and F2, in periods 1 and 2 respectively. The actual output produced is y_1 for period 1 and y_2 for period 2. Thus the firm is technically inefficient in both the periods. Technical inefficiency is measured by the vertical distance between the frontier output and the realized output of a given firm, that is, TI1 in period 1 and TI2 in period 2, respectively. Hence, the change in technical efficiency over time is the difference between TI1 and TI2. Technological progress is measured by the distance between frontier F2 and frontier F1, that is, $(y_2^* - y_2)$ using x_2 input levels or $(y_1^* - y_1)$ using x_1 input levels. The input growth is given by $(y_2^* - y_1^*)$. Denoting the contribution of input growth to output growth (between periods 1 and 2) as Δy_x , the total output growth, $(y_2 - y_1)$, can be decomposed into three components: input growth, technological progress, and technical efficiency change.

$$\begin{aligned}
 D &= y_2 - y_1 = A + B + C = (y_1^* - y_1) + (y_1^* - y_1^*) + (y_2 - y_1^*) \\
 &= (y_1^* - y_1) + (y_1^* - y_1^*) + (y_2 - y_1^*) + (y_2^* - y_2^*) \\
 &= (y_1^* - y_1) + (y_1^* - y_1^*) - (y_2^* - y_2) + (y_2^* - y_1^*) \\
 &= \{(y_1^* - y_1) - (y_2^* - y_2)\} + (y_1^* - y_1^*) + (y_2^* - y_1^*) \\
 &= \{TI1 - TI2\} + TP + \Delta y_x
 \end{aligned}$$

² Figure adopted from "Sources of Variations in Export Flows over Time: A Suggested Methodology of Measurement" by Kaliappa Kalirajan.

Where, $y_2 - y_1$ = output growth

TI1 - TI2 = change in technical efficiency

TP = technical progress

Δy_x = output growth due to input growth

The decomposition in the equation above thus attributes observed output growth to movements along a path on or beneath the production frontier (input growth), movement toward or away from the production frontier (technical efficiency change), and shifts in the production frontier (technological progress).

Following the conventional conceptualization of total factor productivity (TFP), the TFP growth can be defined as the growth in output not explained by input growth. Thus from the decomposition equation, TFP growth consists of two components: technical efficiency and technical progress; that is, $TFP = (TI1 - TI2) + TP$.

5.2 Findings from ARIS/REDS 1999 and 2006 Sample Set

Using the ARIS/REDS 1999 and 2006 panel data, we decompose the output growth in terms of technical efficiency, technological progress and input growth. The mean technical efficiencies for 1999 and 2006 are 0.79 and 0.44 respectively. The input growth ($y_2^* - y_1^*$) as shown in Figure 1 is $(12.35 - 12.20) = 0.15$, and the technological progress ($y_2^* - y_2$) is $(12.20 - 11.57) = 0.63$. Thus Total Factor Productivity (TFP) is $\{(y_1^* - y_1) - (y_2^* - y_2)\} + (y_1^* - y_1)$ is the sum of technical efficiency and technological progress $[0.63 + (0.44 - 0.79) = 0.28]$. Since TFP is greater than input growth we can infer that output growth between the two periods is technology driven.

In neoclassical growth models, it is assumed that the economy will always converge towards a steady state rate of growth, which depends only on the rate of technological progress and input growth. Thus, if we impose the neo-classical framework in the present productivity analysis, total factor productivity would include technological progress only and would not incorporate technical inefficiencies. Hence, the TFP growth would turn out to be much higher.

Further, we can deduce that since the technical change between 1999 and 2006 has been negative, and the technological progress positive at 0.63, the full potential of technological change between 1999 and 2006 could not be leveraged due to the decline in technical efficiencies. To fully leverage the same, policy prescriptions should target increasing farm level technical efficiencies through better adoption of the available technologies.

6. Concluding Remarks

In conclusion, policies to raise technical efficiency and improve farm productivity in the agriculture sector could be incorporated into the agricultural policy in India. A further study should be conducted to investigate the determinants of technical efficiency in the farm sector.

Acknowledgement

The authors are grateful to the International Development Research Center of Canada for the funding provided to the Council for this research. The authors are grateful to Professor Kalirajan of the Australian National University for the support provided for this research.

References:

- Dholakia R. H. and B. H. Dholakia (1993). "Growth of total factor productivity in Indian agriculture", *Indian Economic Review*, Vol. 18, No. 1, pp. 25-40.
- Dao G. and Lewis P., "Technical efficiency of annual crop farms in Northern Vietnam", available online at: http://www.murdoch.edu.au/School-of-Management-and-Governance/_document/Australian-Conference-of-Economists/Technical-efficiency-of-annual-crop-farms-in-northern-Vietnam.pdf.
- The Economic Times, "Agriculture's Share in GDP Declines to 13.7 percent in 2012-2013", available online at: http://articles.economictimes.indiatimes.com/2013-08-30/news/41618996_1_gdp-foodgrains-allied-sectors.
- Green W. H. (2004). "Econometric Analysis", *Pearson Education*, Singapore Pvt. Ltd.
- Idiong I. C. (2007). "Estimation of farm level technical efficiency in small scale swamp rice production in cross river state of Nigeria: A stochastic frontier approach", *World Journal of Agricultural Sciences*, Vol. 3, No. 5, pp. 653-658.
- Kalirajan K. P., M. Obwana and S. Zhao (1996). "A decomposition of total factor productivity growth before and after reforms", *American Journal of Applied Economics*, Vol. 78, No. 2, pp. 331-333.
- Kalirajan K. P. (2010). "Sources of variations in export flows over time: A suggested methodology of measurement", *International Journal of Business and Economics*, Vol. 9, No. 2, pp. 175-178.
- Kalirajan K. P. and Shand R. T. (1999). "Frontier production functions and technical efficiency measures", *Journal of Economic Surveys*, Vol. 12, No. 2, pp. 149-172.
- Mahadevan R. (2003). "Productivity growth in Indian agriculture: The role of globalization and economic reform", *Asia-Pacific Development Journal*, Vol. 10, No. 2.
- Mohan T. (1998). "The growth record of the Indian economy, 1950-2008: A story of sustained savings and investment", in: *Conference of Growth and Macroeconomic Issues and Challenges in India*, Institute of Economic Growth, New Delhi, February 2008.
- Nerker K. R., Kale V. S. and Bhandale R. (2013). "The sustainable growth and development of Indian agriculture", *Asia Pacific Journal of Marketing & Management Review*, Vol. 2, No. 6.
- Okoye B. C., Onyenweaku C. E. and Agwu A. E. (2008). "Technical efficiency of small-holder cocoyam farmers in Anambra State, Nigeria: Implications for agricultural extension policy", *Journal of Agricultural Extension*, Vol. 12, No. 1, pp. 107-116.
- Rosegrant M. W. and Robert E. Evenson (1995). "Total factor productivity and sources of long-term growth in Indian agriculture", *Discussion Paper No. 7*, Environment and Production Technology Division, International Food Policy Research Institute, Washington, D.C.
- Tripathi A. and A. R. Prasad (2008). "Agricultural productivity growth in India", *Journal of Global Economy*, Vol. 4, No. 4, pp. 322-328.
- Tripathi A. and A. R. Prasad (2009). "Agricultural development in India since independence: A study on progress, performance, and determinants", *Journal of Emerging Knowledge on Emerging Markets*, Vol. 1, No. 8.
- Tripathi A. (2009). "Total factor productivity growth in Indian agriculture", available online at: http://works.bepress.com/amarnath_tripathi.
- Shanmugam K. R. and V. Soundararajan (2008). "Sources of output growth in Indian agriculture during the post-reform period", *Working Paper Series 26*, Madras School of Economics.
- VSL Vision Sublime. "Agriculture Industry", available online at: <http://visionsublime.com/content.php?id=2>.

Retrospective Guerrero Emigration to the United States

Artemio López Ríos, Alejandro Díaz Garay
(University Autonomous of Guerrero, 39070 Guerrero, Mexico)

Abstract: This research describes the conditions that have worked in the migration process of the native people from Guerrero to the United States of America. The emigration of people settled in different areas of Guerrero, such as the northern part (Taxco de Alarcon) and the emerging region represented by areas located in the Costa Chica de Guerrero (San Marcos) are analyzed. Inherent factors to the conditions and to the context of the emigration as well as the consequences of this phenomenon affecting the native people of Guerrero, here and across borders are identified after the diaspora to the American Union, namely: migration networks and destination cities remittances. The analysis is based on the concept transnationalism, understood as the practice deployed by individuals and their social networks and communities of origin; the central element that defines the dynamics of migrant relates to the way in which social and cultural spaces are built, and how learning and adaptation is influenced by both economic and social changes.

Key words: emigration; remittances; transnacionalism; region

JEL code: O15

1. Introduction

This research was central objective most closely meet the international migration of Guerrero occurred in the past twenty years (1990-2010). Emigration Guerrero regions that account for the dynamics of migration are analyzed Authority: Traditional region, settled in the northern part (Taxco) and the emerging region represented by municipalities located in the Costa Chica of Guerrero, (San Marcos).

The social impact from the movement of a family member to their destination abroad was measured. The variables are reported in the study are age, gender, education, health, length of stay, social networks, crossing points, destination cities, human rights, political participation and HTAs. The economic impact includes, among other variables, the analysis of households receiving remittances: amounts, frequency and cost; the standard of living in migrant households; collective remittances to the community.

Migration networks, destination cities and remittances: For purposes of this report, some conditions attached to the context and the determinants and consequences of population migration of Guerrero to the United States, namely analyzes.

Artemio López Ríos, Professor, University Autonomous of Guerrero; research areas/interests: international migration, sustainable development. E-mail: artelora@hotmail.com.

Alejandro Díaz Garay, Ph.D. in Geography, Professor, University Autonomous of Guerrero; research areas/interests: international migration, sustainable development. E-mail: diazgaray03@hotmail.com.

2. Literature Review

The issue of migration and development has been addressed by renowned scholars of the stature of Jorge Martinez Pizarro (2000), Alejandro Portes (2006), Stephen Castles and Raul Delgado Wise (2007), among other analysts who have focused the study migration based on their inclusion in the community of economic, goods and services, redirected by the stage of economic globalization and its influences on changes in those territories where migration from southern countries to the north accommodates a pattern defined by the central economies.

According to Martinez Pizarro (2000), from 1990 to consolidate an international scene marked by globalization, where economic interdependence and productive restructuring more likely to favor the migration and, based on the possibility of linking the looms migration potential economic integration presupposes some relevance of migration in establishing bonds of international and regional cooperation.

The aspect discussed by Martinez Pizarro, in the case of Latin America, raises the possibility that local economies can establish cooperation where the axis is migration, while articulating practical needs and interests which might be considered common goals.

To characterize the role of migration on economic relations established by complementary economies, as it is supposed to be in the case of the Mexico and the United States, it is assumed that there is reciprocity in the profits made by the flow of emigrants. To extend this vision are used to the concept of transnational migration, which provides data and information relevant to characterize interaction processes posed by migration.

The concept is understood as practice deployed by individuals and their social networks, as well as the communities of origin, where the central element that defines the dynamics of the sector migrant relates to the way in which social and cultural spaces are constructed from learning and adapting to an environment clearly influenced by global economic and social changes.

Latest fashion in Europe has been discussing the concept of co-development, which aims to contribute to a redefinition of migratory phenomena between recipient countries and ejectors labor. The proposal geared toward "cooperation between the host country and the source, which is controlled mobilization from both parties and, therefore, that the states involved are able to impose this control" (Wieviorka, 2010, p. 25).

In the context of globalization of economic processes, the presence of migration is a factor running through the discussion of the contribution of migration to development. According to Castles and Delgado Weis (2007, p. 6) "Migration is seen as a result of powerful economic and demographic both in the south and in the north, same factors that are perceived as an inevitable consequence of the so-called globalization."

Mexican emigration to the outside, particularly in the last three decades, it has become crucial for many families who see it as an opportunity to earn income, employment and solve problems even factor of marginalization and poverty. But it is also true that emigration is, according to Massey, Duran and Malone (2009, p. 164) "a natural consequence of wider social processes of economic and political integration across international borders."

For its international projection, Mexican emigration takes on a character that defines it as a result of the structure and integration of markets with well-defined characteristics. According to Duran and Massey (2004), some theorists propose to study the migration response to the singularity assumed by the flows of migrants, but mainly by the gravitational force and intensity of international markets in the location and/or restructuring of production processes, supply of raw materials and labor supply.

In such recitals, migration assumes a character that transcends national boundaries, therefore the shift as the

settlement of the workforce experience, exchange of knowledge, but can also be interpreted as a constituent part of more profound changes in the ways of being and feel of migrant communities that are identified by work on the formation of “transnational’s” (Task, 2010).

Meanwhile, Kearney (1989), defined as the unit of analysis the concept of transnational community, including the movement of people between international locations in response to the demands of labor markets and economic conditions of their own lives. This study takes this category to try to understand the population shifts recorded in the regions of emigration and traditional spaces that define regions of emerging migration state of Guerrero.

Meanwhile, Rose (1991) proposed the term “transnational” instead of “binational” and uses the term ‘circuit’ in preference to “red” because it evokes more efficient movement of people, money, goods and information, pseudo-institutional nature of the arrangement (through purely individual loops) and the importance of place qualified (through purely social ties).

However, as noted above, the nature of transnational migration is not possible to narrow it schematically on a single concept. According to Montezuma (2011), speaking of the transnational’s of migrants to be understood why the relations of identity and belonging, which is taken as symbolic value.

Transnational’s concept is understood as the work displayed by migrant communities to respond to needs in facing the individual and the collective, from below as indicated Delgado and Marquez (2007). It is assumed as a practical exerted to enforce rights in the labor and social issues in the communities of origin and destination.

3. General Objectives

- Contribute to the understanding of the dynamics and processes of social change motivated by the Mexico-US international migration, the migration from circuit built by transnational communities in the state of Guerrero.
- Identify elements for the construction of public policies on the Mexico-US international migration, the migration from circuit created by transnational communities Guerrero state.

4. Instrument Methodological

The data coming from different methods are used as complementary to the same verification and as different types of data on a single phenomenon. While quantitative methodology provides information essentially distributive social action, qualitative research shed light on specific social processes.

The ethno survey allows data collection and social, demographic, economic, anthropological, political and cultural level of households and communities (Moctezuma, 2009) information. Through this, we sought to obtain quantitative and qualitative information firsthand. The semi-structured questionnaire contained questions. In fact, he became the nodal analytical tool for community diagnosis; applied in the two selected communities (Taxco and San Marcos) and served as the basis for comparison of results between traditional and emerging areas of study.

Participant observation and interviews with a transnational approach were instrumental synthesis; sought to gather information from previous instruments issues in the context of households in the community of origin and destination. Also in this instrument, the units of analysis were the individual, family, community and migrant organization (Moctezuma, op. Cit.). The application required the transfer of the research team to the cities of residence of migrants (Chicago and Atlanta), although the starting point was always to own transnational

communities in the state of Guerrero.

5. Study Regions

Traditional and emerging region: For the purposes of this research two distinct regions are identified with each other. It considers how the migratory circuit Guerrero-US integrates considering the historical characteristics of the Mexico-US international migration, and the organizational development of their social networks and the intensity of migration since the last decade of the twentieth century.

5.1 Traditional Región

The traditional region brings together a total of 19 municipalities; 5 are classified as “very high” level of migratory intensity; 13 “high” and the town of Taxco de Alarcón (municipality num. 005), which has an “average” grade, but in its territory forming transnational communities as Amealco, Teucizapan, San Juan Union Zapoapa and Temaxcalapa. A distinctive feature of this region is its boundary with one state of traditional migration (Michoacán) and proximity to emerging states considered their migration dynamics in the last twenty years: State of Mexico, Morelos, Puebla and Oaxaca (Figure 1).

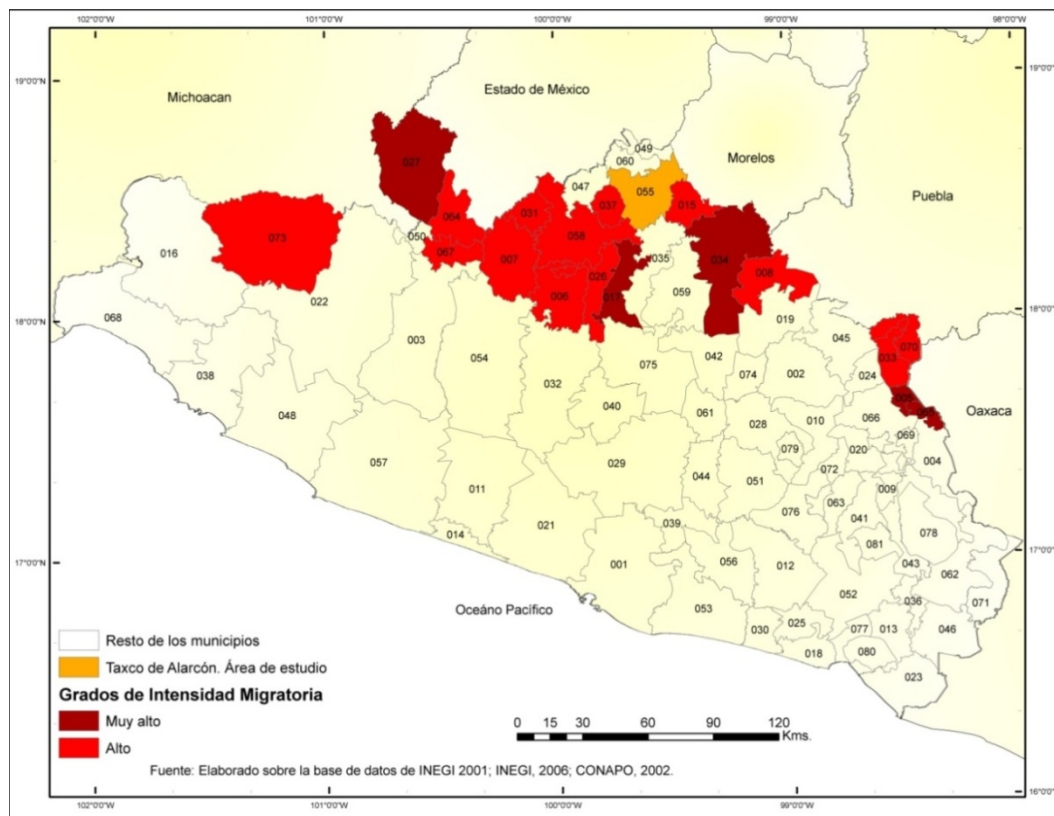


Figure 1 Traditional Emigration Guerrero Region-United States

5.2 Emerging Region

The emerging region is represented by the municipal seat of San Marcos (number 053 in Figure 2). It is a region of recent immigration incorporation over traditional region. The emerging region comprising 62 municipalities: 25 with a grade of “average”, 16 migratory intensity with a degree “under” other 16 “very low” and 5th grade that were created after 2000, so they have not been valued because of their migratory intensity by

CONAPO.

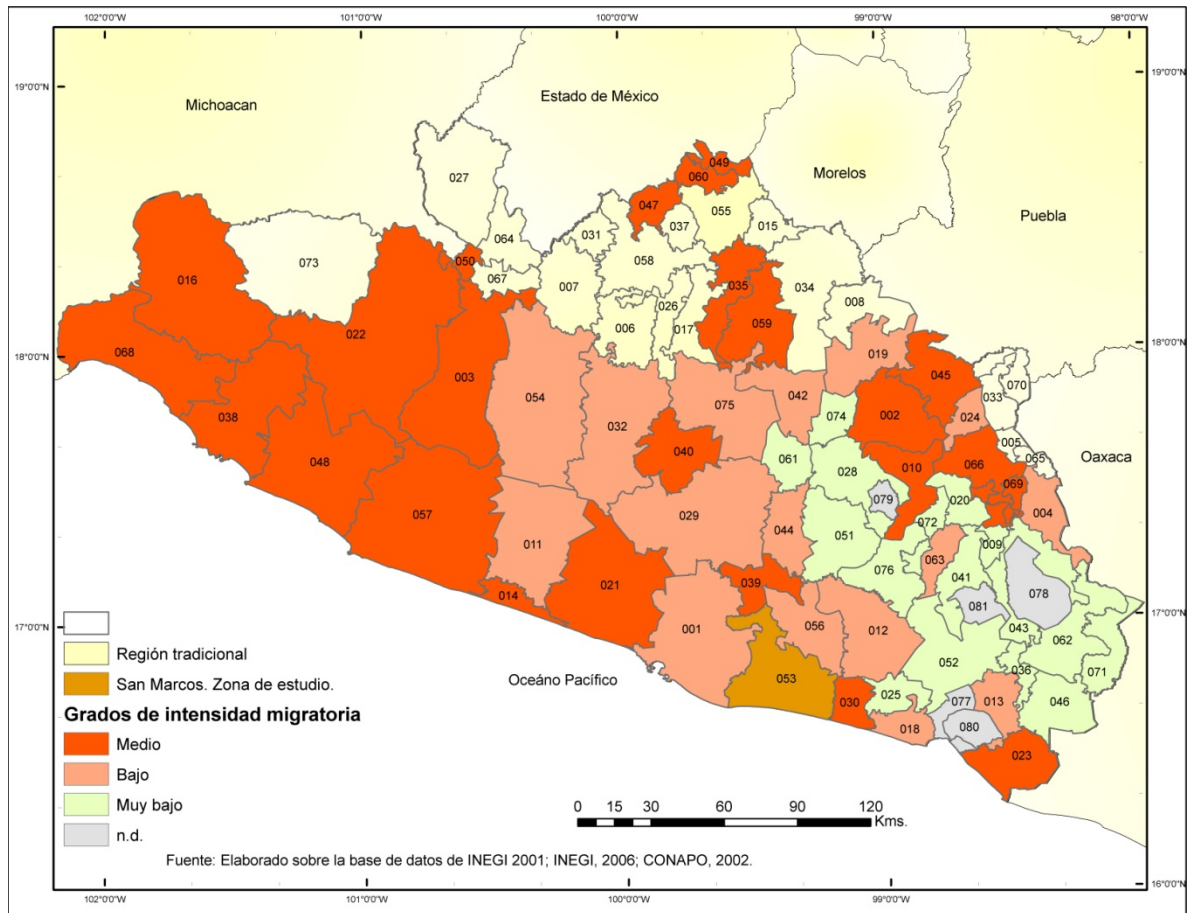


Figure 2 Emerging Migration Guerrero Region-United States

6. Identification of Migratory Networks

6.1 Traditional Region

Networks of social relations function as mechanisms of attraction and attachment of the population. In the case of Taxco de Alarcon, these processes have created community ties beyond the national territory. Kinship and the peasantry is what fuel these networks. Migrants who have residency or citizenship are more likely to financially support the newcomers, who need help to cross the border without immigration documents, obtain employment, consular processing tuition or to live socially and culturally, as well as to form organizations social.

6.2 Emerging Region

Calls international migration networks are primarily constituted within each of the families of migrants. They work as follows: at first emigration, those who performed were the heads of families (parents), then in a second stage, were the male children of these migrants (single and married), helped by their parents which were in the United States. Consequently (father and son settled in the U.S.), the daughters and sisters of these migrants viewed this act as a fashion imposed on the community in the years 90s and, especially, to the beginning of XXI century.

In recent years, are housewives and wives of migrants who are taking advantage of these family networks to attach to the migration process, and alike are leaving the United States. It has been established as a common practice in San Marcos, whole families migrate to the neighboring country to the north with the hope of finding better opportunities for development.

7. Residing Migrants in Destination Cities

7.1 Transnational Migrant Circuit Guerrero

The first migration to the United States Guerrero was detected in anthropological studies Gamio (1930), during the second decade of the twentieth century.

With the Bracero Program (1942-1964), migration - although at low intensity - had spread to various regions of the state (Duran Massey, 2003). By establishing the first links between the pioneer migrants or peasants with their families in the community of origin, came the desire to emulate the efforts of his countrymen, he especially if they had improved their living conditions. In this way, a socio-spatial system well structured international migration at community level (FARET, 2004) was created.



Figure 3 Location of Citizen Guerrero in the U.S.

Since 1990, the United States-Mexico migration began to expand into new geographic areas of Guerrero; Further urban rural localities joined. It happened a progressive abandonment of traditional economic activities in labor-sending communities of Guerrero works as well as the loss of young workers (Diaz & Juarez, 2008). California, Texas and Illinois are the main recipients of Guerrero states (Figure 3).

7.2 Traditional Region

According to statistics from the IME (2008), regarding the matriculate, Taxco prefer to reside in Illinois, California, Texas, Arizona and Washington, but also in other states of the northern neighbor.

7.3 Emerging Region

87% of migrants from San Marcos settle more in five U.S. states: Georgia, California, Illinois, Nebraska and Arizona. For cities, Atlanta, lies 39% of the total; Santa Ana, 8.3%; in San Francisco, 7.9%; 7.3% in Los Angeles; Chicago, 6.3; in Oxnard, 5.3; among other cities.

The 1996 Atlanta Olympics were the main motivation san marqueños displacement of migrants already living in California and Arizona, primarily. The area settled in Lindbergh wins major reinvestments because old buildings have been demolished and built modern apartments. This income has gone up; over 90% of these migrants remain in the U.S. illegally and have no home. On average a former two-bedroom apartment will cost between \$800 and \$1,300 monthly, so many families live in overcrowded conditions.

8. Households that Receive Remittances

Remittances sent to Guerrero had increased each year between 2003 and 2008, while the trend changed from positive to negative (Banco de Mexico, 2010). The causes of this effect to the tightening of measures to reduce illegal migration to the United States, the slowdown in the construction sector and the weakening of the U.S. economy resulting from the mortgage crisis of 2009 were due.

Figure 4 shows a significant drop in revenue from attracting remittances in passing in 2008 and 2009, from 1,402,000 to 1,149,000 dollars. It also shows the continuity in reducing currency in 2010 estimated based on the behavior of remittances in the first quarter, which was reduced by 18.5% over the same period in 2009.

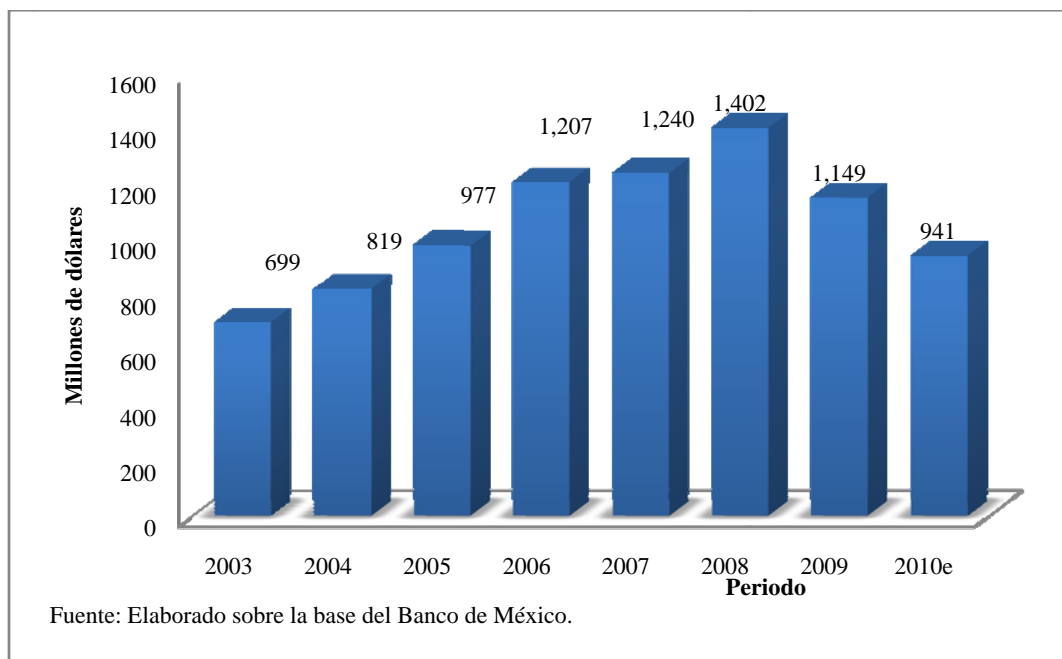


Figure 4 Family Remittances Sent from the U.S. to Guerrero 2003-2010

The 2000 Census reveals that 7.9 percent of households Guerrero on average, receiving remittances sent from the United States (CONAPO, 2002).

Remittances have increased aggregate demand in the economy and rising Guerrero consumption indirectly contribute to the generation of savings and local investment. In this regard, the Report on Human Development in

Mexico (UNDP, 2007) notes that although the impact of remittances on households is positive, from the standpoint of intertemporal and local, regional and national development, a strategy based on the remittances is not the best scenario for the development of Mexico.

Additionally, the hostility of the public policy of the government of the United States reflected in the construction of the border fence, the passage of SB 1070 sponsored by Jan Brewer, Arizona governor, together with the financial strangulation of the drug cartels are elements that have significantly declined sending remittances to the state of Guerrero.

With regard to collective remittances, these are reflected in the contribution that migrants make to benefit organized home communities in the management of social work. The experience of organized migrant Guerrero has reached its highest expression in the establishment of the 3x1 Program, the program has resulted in significant successes that disrupt the regular work of settled communities in the municipalities of Taxco, Iguala, Teloloapan Cocula, Cuetzala Progress and Tepecuacuilco where affected communities are located severely by poverty and marginalization.

The 3x1 Program initiative certainly coming to fruition without the presence and dynamism exercised by organized groups of migrants. In Guerrero, the 3x1 program has the merit of being an instrument of management and monitoring by the community of migrants abroad, allowing organized migrants exercise their civic engagement from the outside

8.1 Traditional Region

For municipalities in the traditional region of Guerrero migration, remittances increased dependence was observed in the town of Cocula, where 33.7 percent of households benefited from this income, you still Cutzamala of Finch and 30.2 percent Huitzuc of Figueroa with 25.2 percent (INEGI, 2001b).

In Taxco, represented by the transnational community of Temascalapa, dependence is higher because the 65% of households receive remittances. Shipping frequencies vary according to family reintegration. When the nuclear family has already migrated to the destination city of the household head, almost automatic remittances are no longer constant.

8.2 Emerging Region

The lower uptake of remittances occurred in the town of Acatepec located in the Mountain region, with just 0.1 percent. The only municipality that no remittance was recorded Xochistlahuaca although migrant population shifts recorded to the United States between 1995 and 2000 (INEGI, 2001b).

In the community of San Marcos, the percentage of households receiving remittances from family members who are in the United States is 74.3%. As remittances constitute crucial to the survival of many families living in expectation of shipments and luck factor family across borders.

9. Conclusions

In the state of Guerrero, the migrant presence is felt strongly in the last three decades. Although there is a history of major migratory waves associated with the Bracero Program, is an incontrovertible fact that the emergence of migration of Guerrero is characterized by recent data if we look at the massive displacements and greatly, if we associate immigration presence integration of exchange and solidarity mechanisms that play a determining role in the patterns adopted by migration after the emergence of organizational forms of migrants.

Indeed, the mobility of the population data from the period of the Bracero Program. Due to insufficient earnings in agriculture following the temporary employment in the field of Guerrero and the low productivity of their land, population growth has led the inhabitants to seek additional outside community activities. After some time, families have been able to succeed thanks obtained employment in the United States.

The experiences of the adults feed the dreams of children and young people in the community who meet only expect the majority to migrate. The concern of this young migration is the loss of potential labor and migration tendency of no return, one of the features of the new migratory pattern. Of all migrants interviewed in both Atlanta and Chicago, none expressed a desire to return to Mexico in the immediate. While some speak of spending the last days of his life in his village, which cannot always continue to work in the United States.

In recent years, sending remittances has been a temporary condition household poverty relief, but creates an economic dependency of the target population. As a development strategy, foreign exchange earnings from remittances are not a viable option because they generate depopulation and loss of labor that undermines the productive potential of the state of Guerrero.

Marginalization, inequality and poverty of the towns in the state of Guerrero require alternative development strategy, a proposed public policy arising from the voices of all stakeholders; not from above, or from the intelligentsia of the cubicles, but from below, from transnational communities. We will have to weigh the desirability of exploring strategies such as “Co-development” to create an environment of international relations on migration linked including visions of key actors in the definition of migration as a process.

Finally, the associative dynamics of migrants from the state of Guerrero is similar to what happens in other entities of Mexico. Organizational levels achieved by Guerrero clubs have served as an example to other Mexican organizations in Chicago. Not the case of Atlanta, and California, Arizona or Texas, states important destination for Guerrero. However, existing organizations are structures that deserve to be studied by the impacts of different scope you can recognize them in both places of employment and places of origin, where they tend to be oriented towards the majority of shares.

However, for now the influence of clubs Guerrero has a greater impact in the places of origin in places of employment of the members that make up. The main impact is at the level of transnational community; the logic of solidarity, community engagement and social organization, reaffirm the identity and culture of their own players.

References:

- Banco de México (2010). “Ingresos por remesas familiares: Distribución por entidad federativa”, 18 de marzo de 2010, available online at: <http://www.bancomexico.gob.mx/polmoneinflacion/estadisticas/balanzaPagos/balanzaPagos.html>.
- Castle Stephen and Raúl Delgado Wise (2007). *Migración y desarrollo: y perspectivas desde el sur*. Miguel Ángel Porrua, UAZ, RIMD, SEGOB, INM, CONAPO, IMI, University of Oxford, Méx.
- CONAPO (2002). “Índice de Intensidad Migratoria México-Estados Unidos, México”, 12 de agosto de 2006, available online at: <http://www.conapo.gob.mx/publicaciones/migra4.htm>.
- Delgado Wise Raúl and Humberto Márquez (2007). “Teoría y práctica de la relación dialéctica entre desarrollo y migración”, en *Revista Migración y Desarrollo*, No. 9, Méx.
- Díaz Alejandro and María del Carmen Juárez (2008). “Migración internacional y remesas: impacto socioeconómico en Guerrero”, en *Papeles de Población*, No. 56, CIEAP/UAEM, Toluca, México.
- Faret Laurence (1998). “Les territoires de la mobilité. Champ migratoire et espaces transnationaux entre le Mexique et les Etats Unis”, Tesis, Doctorado en Geografía, Universidad de Toulouse Le Mirail, Francia.
- Gamio Manuel (1930). *Número, procedencia y distribución de los emigrantes mexicanos en los Estados Unidos*, Talleres Gráficos Editorial y Diario Oficial, México.

- IME (Instituto de los Mexicanos en el Exterior) (2008). Matrícula consular, 2006 y 2007.
- INEGI (2001a). XII Censo General de Población y Vivienda, Ags., México.
- INEGI (2001b). Base de Datos y Tabulados de la Muestra Censal, Ags., México.
- INEGI (2002). Sistema para la Consulta de la Información Censal 2000. SCINCE Guerrero, INEGI, México.
- INEGI (2006). II Conteo de Población y Vivienda 2005. Resultados definitivos. Tabulados básicos, México
- Jorge Durand and Douglas S. Massey (2003). *Clandestinos Migración México-Estados Unidos en los albores del siglo XXI*, Colección América Latina y el Nuevo Orden Mundial. México: Miguel Ángel Porrúa, UAZ.
- Kearney Michael and Carole Nagengast (1989). "Anthropological perspectives on transnational communities in rural California" en California Institute for Rural Studies, Working Paper # 3, Estados Unidos.
- Massey Douglas, Jorge Durán and Nolan J. Malone (2009). *Detrás de la trama. Políticas migratorias entre México y Estados Unidos*, Miguel Ángel Porrúa, UAZ, Cámara de Diputados LIX Legislatura, Méx.
- Martinez Pizarro Francisco (2000). La emigración internacional y el desarrollo en la era de la globalización e integración: temas para una agenda regional, Población y Desarrollo serie num. 10, CEPAL, Santiago de Chile.
- Moctezuma Miguel (2009). "Laguna Grande: etnografía de un circuito social transnacional de sistema migratorio maduro", en Ramos, María Elena (coord.) (2009). *Migración e identidad: emociones, familia, cultura*, Fondo Editorial de Nuevo León, México.
- Moctezuma Miguel, (2011). *La transnacionalidad de los sujetos. Dimensiones, metodologías y prácticas convergentes de los migrantes mexicanos en Estados Unidos*, Miguel Ángel Porrúa y Universidad Autónoma de Zacatecas, Méx.
- Portes Alejandro (2006). "Migration and development: a conceptual review of the evidence", en Stephen Castles y Raúl Delgado, *Migration and development: Perspectives from the south*, International Organization for Migration y Universidad Autónoma de Zacatecas, Méx.
- PNUD (2007). *Informe sobre Desarrollo Humano, México 2006-2007*, D.F., México.
- Rouse Roger (1991). "Mexican migration and the social space of postmodernism", *Diáspora*, 1:1, Estados Unidos.
- Taks Javier (s/f) (2010). Políticas públicas sobre migración y desarrollo para Uruguay, un país transnacionalizado, available online at: <http://www.estudiosdel desarrollo.net>, Noviembre de 2010.
- Wieviorka Michel (2010). *Crítica del codesarrollo, en migraciones y desarrollo. El codesarrollo: del discurso a la práctica*, ed. Anthropos, Madrid, Esp.

Housing Policy as a Part of Urban Regeneration Policy — The Case of Poland

Aleksandra Jadach-Sepiolo, Wojciech Jarczewski
(Institute of Urban Development, ul. Cieszyńska 2, Cracow, Poland)

Abstract: Urban regeneration is becoming important part of the arising urban policy in Poland. Since 2004 urban regeneration projects has been financed by the structural funds and has been adopted as one of the measures taken by the local authorities to tackle with the wicked problems in deteriorated areas. Although many resources are dedicated to the urban regeneration programs, the effects are still weak, especially in housing, or even contrary because of gentrification effects. The aim of the article is presentation of wicked problems in Polish housing policy with reference to the urban policy and regeneration measures. The interdependencies are shown and the “wicked” character of the problem is reflected.

Key words: housing policy; urban regeneration; wicked problems; gentrification

JEL code: R58

1. Introduction

The spatial transformation in Polish cities taking place in the communist period and in the transition period after 1990 led many districts and even whole cities to worsening crisis (Ziobrowski, Jarczewski, 2010). Despite the fact that western European countries have developed numerous mechanisms to tackling with deterioration of urban areas (Gotham, 2001; Hall, 2006), this knowledge was hardly recognized in Poland. The inspiration and expertise came mainly from France (Skalski, 2009), Germany (Bryx, Jadach-Sepiolo, 2009) and the United Kingdom (Guzik, 2009). Gradually, from the very beginning of the transition period, the Polish approach to urban regeneration evolved from very local to national one. Muzioł-Węclawowicz (2009) distinguishes three stages of this evolution:

- 1990-2003 — pioneer revitalization,
- 2004-2008 — first common revitalization financed with the EU funds in the Integrated Regional Development Program framework,
- since 2009 — striving for integrated revitalization in the regional operational programs framework.

Even striving for integrated approach there is very low recognition to the detailed specificity of the problems occurring in the deteriorated areas. Because of lack of information, these problems are inherently hardly to be defined. The plentitude of local stakeholders (esp. due to the ownership dispersion after communist period) results

Aleksandra Jadach-Sepiolo, Ph.D., Institute of Urban Development; research areas/interests: urban economics, urban regeneration, fiscal instruments curbing suburbanization, gentrification. E-mail: a.jadachsepiolo@gmail.com.

Wojciech Jarczewski, Ph.D., Institute of Urban Development; research areas/interests: urban geography, CLLD, urban regeneration, public involvement in local development. E-mail: jarczewski@poczta.fm.

in many interdependencies and multicausality of the problems. The undertaken measures rarely solve the problems rapidly, so the residents' involvement is unstable (Jadach-Sepiolo, 2014).

Most of the negative phenomena affecting deprived areas (poverty, unemployment, prostitution, social pathologies) are so called wicked problems. "Wicked problems have incomplete, contradictory and changing requirements, and solutions to them are often difficult to recognize as such because of complex interdependencies" (Rittel, Webber, 1973). Public authorities aren't capable of tackling wicked problems directly because of the accumulation of diverse negative feedbacks (spatial, social, economic) and interconnections between causes and results of the problems. In the western European counties in the 1980s it became clear that the existing policy tools are not sufficient to cope with the increasing social (unemployment, welfare-dependence, pathology, etc.), ethnic and economic conflicts. The economic transformation to post-industrial economy, which gradually spread over European countries was one of the important factors fostering new approach to urban redevelopment, that could tackle at least some of the wicked problems. Then, the area-based regeneration become the leading approach (Larsen, Engberg, 2011), what was massively supported by implementation of the Urban Initiative (1994-2000) (Berg et al., 2007).

After completion of the URBAN initiative, in European countries, a series of government programs were launched, continuing comprehensive regeneration, e.g. the Italian program *contratti di quartiere*, implemented with the involvement of local residents. The beneficial effect of the URBAN Initiative could also be seen in Germany, Spain and in the United Kingdom, where the awareness of the importance of revitalization processes at the local level significantly increased and thus the involvement of the local public and private entities rapidly grew. Despite the fact that Poland didn't participated in the URBAN Initiative, the definition of urban regeneration, implemented to the Polish law by regulation of the Minister of Regional Development, complies with the URBAN standards, stating that it is "a comprehensive, coordinated, multi-annual process of spatial, technical, social and economic revival of deprived areas, initiated by the local government in order to tackle with crisis the designed area, in particular by giving it a new functional quality and creating the conditions for its development, based on the specific endogenous resources" (MRD 2010).

Theoretically, the aforementioned definition is perfect and reflects the highest level of internalization of European regeneration paradigm (Roberts, Sykes, 2000; Jadach-Sepiolo, 2014), but the devil is in the detail — there is a particular wicked problem (or more wicked problems) behind the crisis in the every deteriorated area. Despite the fact that urban regeneration programs have been realized in some cities for 10 or even more years, housing policy seems to be Achilles' heel of Polish cities. The main aim of the article is to show the reasons for "wicked" character of housing as a part of complex deterioration of urban areas in Poland. The article is divided into four sections. The first one presents the most important factor, so called "repair gap" in Polish cities, the scope of which is one of the biggest restraints of social and economic revival of Polish cities. In the second section we explore the gentrification effects of urban regeneration measures undertaken in 1990-2003 in some cities, proving that without proper housing policy (including affordable housing in city centers) all regeneration programs will be infected with displacement effects. The third section gives some insights in the results of the housing projects conducted with support of the EU funds. The last one is summary with recommendation for further research and policy corrections.

2. "Repair gap" in Polish Cities

Poland for a long time didn't take part in the European debate on urban regeneration (1960-1990).

Meanwhile the so called “repair gap” grew, increased by irrational management of housing resources during the communist period. Additionally, after 1989 in some cities (mainly in existing industrial districts) deteriorated socio-economic urban fabric as the result of the liquidation of state-owned enterprises and mass redundancies employed there. Capital lacked, but not only in financial terms – much acuter with reference to the needs for revitalization requiring joint efforts of the authorities and the involvement of the local community was (and still is) lack of social capital. Symptomatic was very low involvement of nongovernmental partners in preparation and realization of local revitalization programs. Adamski (2008) proved that other entities involved in the financing of regeneration activities in the period 2004-2007 was 15%, and these were mostly municipal enterprises, government entities, cultural, housing cooperatives and social housing associations (TBS). In fact, the only group of private entities involved in the revitalization were housing communities.

Quite significant repair gap, which is a remnant after disinvestment from the communist period, coincided with the problems so far concealed poverty and social exclusion. Gradually, especially in cities with large scale degradation of inner-city areas, more and more visible become the processes of suburbanization, which further weakened the central areas in the cities.

Research conducted in 2003-2005 by the Institute of Urban Development (Zaniewska et al., 2005) have provided fairly detailed information on the state of Polish housing at the turn of the century. Unfortunately, the picture that emerged was not positive. The authors of the study, formulated sad diagnosis:

- there is a huge housing deficit in Poland,
- current housing resource is not able to cover the needs of the population,
- huge part of the housing stock is depreciated and even its technical conditions worsen,
- many apartments in old buildings are below standard and there is little chance for modernization,
- maintenance, refurbishment and modernization costs increases geometrically,
- the scale of housing exclusion is significant and this phenomenon relates not only to the people from disadvantaged groups (families with many children, pathological, socially deprived, unemployed), but also young people with an average economic situation with low or even no creditworthiness.

Causes of this situation should be sought in the housing policy of the state in the communist period, but also in the fast-paced economic and social transformations that have taken place during the transition times. Like other European countries, Poland was in the first years after World War II to the significant lack of housing, especially in cities. Therefore, one of the first acts of the new government was so-called decree on the compulsory allocating apartments. Till this moment privately owned housing stock were transferred to public disposal, bigger apartments were shared by many families in order to get more independent venues. The right of the owner to set rents was cancelled. The negative effects of break in the relationship between rents and the cost of the buildings’ maintenance and the quality of housing were easy to predict — lack of repair (even necessary) and progressive deterioration of housing stock. The decree related mostly to the central areas, so the historic buildings were the most exposed to this negative effect of political decisions (Bryx, 1999).

Conducted in 1965, rents reform did not bring long-term improvements. Some new revenues allowed covering running costs and saving a small surplus for the repair of buildings, but then the rates have not been updated until 1983. The later rent update didn’t result from the economic calculation, but was a “beauty treatment” caused by the increasing inflation and the progressive need for state subsidies to the new housing estates (Zapart, 1999). In the period 1966-1990 the coverage of the costs of housing maintenance by the rents decreased steadily until in 1990 exceeded a dramatic level of 10%.

Low rents were treated as part of the remuneration policy of the state (Lowe, Tsenkova, 2003). The necessities of setting them at artificially low level explained by the low income population, and these in turn were determined at the governmental level accordingly to rents' level. Such a vicious circle mechanism stemmed from the nature of the centrally planned economy in which the mechanisms of income and demand were not regulated by the price, but resulted from manual control of the economy. The desire to maximize use of the existing housing stock with inadequate expenditures on repairs translated into a gradual decapitation of existing housing assets.

Analysis of the current structure of the housing stock shows that on average, the housing situation in Poland in the period 1988-2002 has improved:

- the average size of apartments increased (from 53.8 to 60.7 sq m), as well as number of rooms in the apartment (from 3.29 to 3.51) and the number of bedrooms (from 2.37 to 2.54),
- between 1988 and 2002 approximately 240,000 housing units were demolished or converted for the non-residential purpose, thus reducing the supply of housing of a lower standard,
- access to infrastructural amenities (water supply, bathrooms, hot water, central heating and gas supply) was improved (Cesarski, 2007).

Increase in average values was mainly due to the new development for sale, where the average square footage is up to 79.4 m², which is almost twice the value in comparison with the average size of dwellings in social housing association (TBS) (48.8 m²). Similarly, the average access to infrastructural amenities increased because of new development, but in municipal housing stock the indicator value was still low (77.1%).

It should be noted that the standard of housing depends largely on the age of the buildings. According to data from the National Census of Population and Housing 2002, there were 4,772.7 thousand residential buildings in Poland, of which about 413.000 (9%) were pre-1918 buildings. In comparison to the census data of 1988 118,000 housing units of this stock disappeared (approximately 22% of the stock of 1988). From the housing stock built in the period of 1918-1945 83.9% survived between 1988 and 2002. Because the demolition indicators related to the housing resources from the periods before 1918 and from 1918 to 1945 were respectively 14.4% and 9.7%, another characteristic of Polish housing stock should be emphasized reflecting the high proportion of buildings uninhabited because of technical conditions. The legal status of this stock doesn't allow for demolition unless the building causes hazard to people or other buildings.

According to research conducted in the project "Revitalization of Polish cities as a method for preserving material and spiritual heritage and as a factor of sustainable development" most depreciated buildings were built before 1945, even heritage ones. This information is seemingly obvious, but it's very important as these buildings are mostly located in the centers of large and medium-sized cities, where the quality of housing stock decreases quality of life and the neighborhood effects spread over adjacent buildings (Jarczewski, 2009).

No general repairs, for which still lacked the funds, low rents and inefficient administration of these buildings in the communist period resulted in a significant increase of the repair gap. There was also no significant change in the approach to the renewal of inner-city neighborhoods after 1989. Although the former owners began to recover their property, but it required substantial financial resources for their maintenance and repairs after decades of negligence. Slow rent reform, after year of low rent policy, postponed in most cases the performance of major repairs. Żelawski et al. (2008) indicated that a large part of housing stock should be renovated immediately just in 1989: 25-35% of the resources were classified as requiring minor repairs, while up to 50% — extensive renovations. These were largely estimates, because it was difficult to determine the value of the gap repair in Poland. Detailed studies carried out in the 1990s allowed to estimate it to 36 billion PLN based on annual wear

and tear co-efficient (Kornilowicz et al., 2003). Cesarski (2007) estimated the scope of repair gap analyzing projected cost of repairs and renovations in substandard housing. On this basis he qualified for repair about 900.000 housing units due to lack of basic amenities, another 500.000 due to excessive wear resulting from overcrowding. However, the scale of renovation needs in pecuniary terms is difficult to assess, it's not only the matter of repairs, but also there is number of substandard housing and overcrowded housing units.

In the substandard housing stock live nearly 6.5 million people, represent 17.1% of total population in Poland. About 2.5 million people are urban dwellers. At the same time many people in Poland live in conditions worse than sufficient: 45.1% of the rural population and 29.6% of the total urban population. For these people, regeneration activities are particularly needed, especially since living in substandard conditions most often associated with poverty and unemployment.

The scale of the phenomena of degradation and poverty in the Polish cities presented above is not sufficient to undertake urban regeneration measures, because the data does not show the complexity and spatial concentration of the crisis. The criteria for delimitation of crisis areas were developed during the course of the URBAN initiative and clearly indicate that spatial concentration of deterioration, combined with social and economic deprivation is condition required for issuing urban regeneration program and its implementation. Pursuant to the requirements, crisis area had to meet at least three criteria set out in Art 47 paragraph 1 Commission Regulation (EC) No 1828/2006 of 8 December 2006 laying down detailed rules for the implementation of Council Regulation (EC) No 1083/2006 laying down general provisions on the European Regional Development Fund, the European Social Fund and the Cohesion Fund and of Regulation (EC) No 1080/2006 of the European Parliament and of the Council on the European Regional Development Fund (OJ. EU L 371 of 27.12.2006, p. 1) listed below:

- unemployment rate above the national average,
- high levels of poverty and poor housing conditions,
- high levels of crime,
- low level of education,
- polluted environment,
- high level of technical degradation of buildings and infrastructure.

Prior to 2004, only few cities were described with detailed data reflecting spatial distribution of poverty, unemployment and poor housing conditions, however, it seemed that the situation will improve, along with the aforementioned requirements to conduct the socio-economic analyzes. Unfortunately, in most urban regeneration programs (lokalne programy rewitalizacji — LPRs) for 2004-2012 the concrete and detailed data has still lacked. Thus, the most common criterion for the delimitation of the LPR revitalization area was the decision of the local authorities. Due to the significant depreciation of the housing stock in the inner-city area of mostly city authorities suggested these areas as needing revitalization. A survey conducted in 2008 by the Institute of Urban Development has shown that Polish municipalities identify 62,337.3 ha of urban areas requiring regeneration (51.8% of all degraded areas in Polish cities regardless of the type of area). Population of these areas is approximately 2.2 million people, or approximately 12.7% of the total urban population.

Zaniewska et al. (2005) proved that since the late nineties the trend of increasing poverty in the central parts of cities, especially small and medium-sized, has become increasingly noticeable and correlates with the poor condition of municipal housing stock built before 1945. At the same time improving the living conditions of the population in other areas increased the disproportion and stimulated spatial segregation. Morally and socially

degraded areas downtowns are not an attractive place for households with high incomes, hence also in Polish conditions intensifies the process of suburbanization. Its effect is not only deepening social inequalities, but also increase the burden of transport in relation to the growing commuting time and associated environmental pollution.

The “repair gap” is still one of the most important factors affecting the “wickedness” character of housing problems in urban regeneration problems. The EUROSTAT, assessing conditions of housing stock, provided information, that around one third of Polish population (29%) lives in sub-standard rental property (Eurostat 2009).

3. Gentrification as a Placebo

The next reason for “wickedness” character of housing problems in urban regeneration problems is the gentrification and intentional displacement as a part of urban regeneration strategies in the 1990s in Poland. In the political void, the catalogue of positive results of gentrification for urban fabric was broad enough, even having considered displacement, to attract local authorities, as gentrification require no extra money from the city budget, and as it has been already stated, Polish cities don’t have any additional resources for housing programs. However, social problems (displacement and segregation) that are caused by gentrification are serious, especially regarding the contemporary paradigm of urban regeneration which aims at solving problems of physical degradation as well as social and economic signs of a crisis in a given area.

Now a very important question arises whether the realization of social objectives of regeneration, such as an improvement of residential conditions (or raising the standard of life in the broader meaning) in the area covered by this process indicates upgrading the life of present residents or residential conditions in general by putting current inhabitants aside (London, Palen, 1984). A few answers are possible:

- improving living conditions (renovation, modernization) and maintaining the present composition of inhabitants,
- improving residential conditions and privatizing flats or changing tenants’ composition by the owner (the present residents are resettled at the beginning of renovation work to a communal flat outside the regenerated area),
- improving residential conditions and partially maintaining the up-to-date social composition (resettling people whose lifestyle could lead to quick degradation of the restored building to communal flats outside the regeneration area).

Although ideologically noble, the first solution is costly (rent allowance) and not very effective, concerning maintenance of the intervention’s results. The second solution is actually a first step to creating ghettos and places where spatial segregation might be repeated. The third solution seems to be the optimal. In this case however, privatization of part of flats may (un) intentionally start gentrification processes. When gentrification is the result of regeneration the first two phases do not take place, and the dominating role is played by gentrifiers, who bring specific patterns of behavior and lifestyle with them, very often difficult to accept by the original residents. As a consequence displacement can occur. Adequate instruments of regeneration policy can try to stop this process: the authorities in the Eastern Berlin, having learned their lesson after quick gentrification of a part of Budapest in the 1990s, introduced some restrictions in the rise in real estate prices and rental costs all over areas under regeneration, which was to stop at least the speculative actions (Huron, 2005).

Table 1 Maintenance of Social Structure in Regeneration Programmes Implemented in Polish Cities between 1990 and 2003

City	Situation of the area in the city's layout	Social objectives of regeneration	Means of implementing social objectives	Change of resident composition	Cooperation with the local society.
Będzin	City centre	Improvement of accommodation.	Constructing community flats, relocating present residents, renovating and modernising their old flats.	Yes, original residents are to live in community flats outside the regeneration area.	Yes.
Bielsko-Biała	The Old Town	Improvement of accommodation.	Regeneration Fund: mainly renovation of historical buildings, public assistance to the residents resettled to substitute accommodation, allowances and relieves for small private investors; Program Małych Ulepszeń ¹ ; council loans to young marriages for renovating flats within the Old Town	No	Yes, engagement of private real estate owners.
Dzierżoniów	The Old Town	Improvement of accommodation.	Refunded expenditures for refurbishments, Program Małych Ulepszeń, Program Nowe Podwórko ²	No	Yes.
Kraków – Jurydyka Lubicz	City centre	Improvement of residents' standard of life in the old residential stock.	Improving the standard of flats adapting attics, upgrading aesthetics of buildings and area around them by owners of the buildings, with a broad council's organisational assistance; the majority of funds were donated by the European Council.	Not intended.	Yes, community conference meetings.
Płock	The Old Town	Improvement of accommodation.	Complex renovation and modernisation, demolition of the most degraded buildings with an intention of their future full reconstruction.	Displacement of the original residents to substitute accommodation (MTBS ³).	Yes, negotiations during displacement.
Szczecin	City centre	Improvement of accommodation, technical condition of buildings and area around them, upgrading communications solutions, introducing commercial measures, natural environment protection.	Renovation and modernisation in the "commercial model", and small renovation and modernisation work in Program Małych Ulepszeń (e.g., replacement of heating systems, sanitary ware and kitchen fixtures and fittings).	Renewal and renovation and then privatisation of flats and improvement of social composition in the area. Resettlement to the STBS ⁴ stock.	None, social protests.
Sopot	City centre	Improvement of accommodation.	Revitalisation Programme and Program Małych Ulepszeń	Not intended, now market mechanisms operate.	Yes, when drawing up principles of the regeneration programme.

Source: Own elaboration.

¹ City council programme of partially funding improvements made by tenants and owners.

² City council programme of funding development of home gardens, e.g., planting greenery.

³ MTBS — Miejskie Towarzystwo Budownictwa Społecznego Sp. z o.o., social housing association in Płock.

⁴ STBS — Szczecińskie Towarzystwo Budownictwa Społecznego Sp. z o.o., social housing association in Szczecin.

When gentrification is the result of urban regeneration measures it usually takes smoother forms (such as soft or split gentrification) than in the case of the classical process initiated by the market forces (Lisowski, 1999). Due to a “improvement” of the social composition in a given area, it is often treated by local politicians as a remedy to the problems of spatial segregation, and also as an index of area revival and achievement of social diversification. Thus authorities in many western cities draw up special strategies of implementing such processes to the regeneration strategy (Hermann, Leuthold, 2003). This is an interesting direction that should be a subject of discussions also in Poland. Nonetheless it seems important in the light of the analysis of the measures for social composition stabilization taken by pioneer cities which carried out urban regeneration programs on their own between 1990 and 2003. The results of the analysis have been presented in the Table 1.

The presented table shows that beside cities which launched only small improvement programs (Polish: Program Małych Ulepszeń), relocation of previous inhabitants as a result of urban regeneration measures was intended in all analyzed cases. Thus, direct displacement can be observed, similarly to the federal urban redevelopment programs launched in the US during 1950s and 1960s. What is especially characteristic is only slight catalyst effects on the real estate market in the regenerated areas.

Gentrification, which is usually stigmatized in western press and also in the scientific literature, is still very ambiguous notion for administration of Polish cities. Displacement and homelessness are the first phenomena, which are connoted with this process. On the one hand, gentrification is treated as something wrong because of displacement; on the other hand, results of the research show strong tendency of Polish cities’ authorities to relocate previous inhabitants of the regenerated areas. That might be seen as gentrification, even if it’s not called so at the moment. Although the scope of relocations is in each case an individual issue, it seems worth emphasizing that urban regeneration programs in Poland should take advantage of the gentrification kick-off effect for property market and social objectives of the self-governments.

Assessment of social structure in urban areas (especially the regenerated ones) is an interesting and important topic not only for scientists but mainly for planners and local authorities dealing with urban regeneration programs. On this background arises the question about the place of gentrification in the regeneration policy: whether it should be treated as dangerous evil, or a useful mechanism complementing institutionally supported regeneration processes with some elements of a market game. The answer is not unequivocal and mainly due to ethical reasons and individual discrepancies between cities cannot be such. However, it should be stressed that apart from the traditional gentrification with displacements and dramatic residents’ protests there is also its softer form which, being accustomed with adequate regeneration policy actions, is not aimed at creating a new mono-culture with representatives of the metropolitan class, but at achieving a diversified social composition and thanks to that a kind of social regeneration (German: soziale Aufwertung).

4. Housing Projects as a Part of EU-funded Regeneration Programs — Illusion of Change?

The first “wave” of urban regeneration, though not without shortcomings, has proved to be a success (Siemiński, Topczewska, 2009; Jarczewski, 2009; Jadach-Sepiolo, 2010), which meant that in the 2007-2013 programming period the funds for this purpose has repeatedly raised. Since 2009, cities began to benefit from the new EU funds. The main source of funding was the regional operational programs.

Although the implementation of the projects will continue until 2016, it is already known that the total financial allocation for urban regeneration projects slightly exceeded 1 billion EUR and it was 5.8% of the total

expenditure of Regional Operational Programmes of all provinces. The total value of all projects financed in Poland amounted to 1.79 billion EUR. At least one urban regeneration project was funded in the regional operational programs' framework in 500 of the 900 Polish cities. This means that urban regeneration has become a common activity in most of the cities.

Regions have chosen a different approach to the issues of urban regeneration, tailored to their needs and urban regeneration approach. An example worth mentioning is Warmia and Mazury, where urban regeneration activities have been broken down into three sub-measures. Among them the humanization of large housing estates is worth mentioning. Both in terms of the quality of the housing stock and social problems crisis phenomena can be observed in this particular region in the areas of large housing estates, although nationwide LHE are not so affected by the accumulation of deterioration problems as downtown.

Available, limited funds for urban regeneration were dedicated to different types of intervention, which resulted on the one hand the high demand for these resources and on the other — very diverse and often poorly integrated projects. It should be noted that the analysis shows that the key importance in the financing structure of urban regeneration played an aid from the EU. The role of the national public contribution was limited, similar was the low significance of private funds.

Also in this period, housing does not become a centre of urban regeneration processes in Polish cities. Undoubtedly, housing is still waiting for its time in urban regeneration. In the EU-funded housing projects (78 category) the catalogue of eligible costs comprised expenditure for the renovation and modernization of the common parts of multi-family dwellings, their preparation for the use of social housing for low-income households or people with special needs, providing them with good standards through renovation and adaptation of buildings owned by public authorities or the non-profit entities. In total housing in all regional operational programs provided 235 million Euros, representing planned 1.2% of the allocation (Dodd et al., 2013) (detailed data in the table below).

Table 2 Housing as a Part of the EU-funded Regeneration Programs (Data for the End of 2011)

Region	Allocation (78 category) [eur]	The number of supported projects
dolnośląskie	32282747	102
kujawsko-pomorskie	19115177	23
lubelskie	23117091	0
lubuskie	2171588	1
łódzkie	18114856	1
małopolskie	5800000	1
mazowieckie	45900000	0
opolskie	4224244	1
podkarpackie	23403530	21
podlaskie	0	0
pomorskie	5370599	0
śląskie	12495808	14
świętokrzyskie	2165482	0
warmińsko-mazurskie	22285654	53
wielkopolskie	6131250	0
zachodniopomorskie	12000000	0
Total	234578025	217

Source: Kędzierska 2011.

Concerning lack of national housing policy in Poland, the regional framework for housing projects as a part of urban regeneration programs, was perceived as a chance for change. Unfortunately, as can be seen at the table 2, only few regions decided to take this opportunity. The absolute leaders were dolnośląskie, warmińsko-mazurskie, kujawsko-pomorskie and podkarpackie voivodships, where plenty of small and medium projects were realized. Diverse approach was launched by the łódzkie voivodship, where only one, flagship project were realised, but here housing regeneration was treated as the impetus for the revival of the whole Old Town in Sieradz (Dodd et al., 2013). The main aim was the improvement of living conditions, the attractiveness of the area and conditions for habitation and boost economic activity in the neighborhood. This approach wasn't typical one, but despite the fact that there were not many housing projects supported from the UE-funds, the lesson has been learnt otherwise. The required participation of different stakeholders in programming of the urban renewal actions developed a framework for strong residents' involvement in many Polish cities (Jadach-Sepiolo, 2014). The wicked problem of housing relates then mostly to the lack of national framework for housing measures than to the obsolete attitude of the stakeholders.

5. Conclusion

Housing policy at national and regional level, and even at the level of individual cities in Poland after 1990 was very limited. In general, this area of social life has been developed by the free market, and public instruments, even if in some cases quite well designed usually were implemented for several years and then cancelled before they even managed to prove their positive effects. Thus, housing not happened in Poland, an important part of urban revitalization processes. However, even the few good instruments to promote housing regeneration were implemented in cities, it's still no wider inclusion of housing as an important element of urban revitalization in Poland.

Polish revitalization processes, as noted in the previous section — haven't have yet the nature of a comprehensive and integrated. This situation can't be improved without the inclusion of housing into the urban regeneration framework, what was partially initiated in National Urban Policy (2014). The most important conditions for the inclusion of housing in the revitalization are:

- special fund for owners of residential property in the revitalized areas. Polish experiences show that already grants of 15-20% of the total investment (both eligible costs and ineligible) causes the property owners are interested in investment. Owners of residential property would improve the quality of their housing stock, if they could benefit from special funds;
- support for the construction of affordable housing in revitalized areas. In Poland, the local government of the municipality's own tasks is to create the conditions to meet the housing needs of its residents. The problem in most cities is the lack of funds for creation (construction/purchase/repair) flats. Cities need funding mechanisms, both in the form of grants and loans for affordable housing investment, esp. improving mobility within urban functional areas;
- creation/reactivation of the program for the construction of apartments for rent with a special preference for revitalized areas. From 1995 to 2009 in Poland operated the program of Social Housing Association, which enabled the financing of the construction of housing for people with average incomes on the basis of low-interest, long-term loan. This program should be restored;
- no EU-funded support for the infrastructure in the suburbs as a condition sine qua non for boost investment

in housing in central urban districts,

- promotion integration of different sources of financial support in area-based integrated approach dedicated to the residential areas in the urban core with the highest level of deprivation.

References:

- Adamski J. (2008). Ocena lokalnych programów rewitalizacji—przykład metody wielokryterialnej oceny, Materiały konferencyjne, “Rewitalizacja miast polskich—sytuacja wyjściowa, problemy, dylematy”, 18-20 września 2008, Kraków.
- Berg L. van den, Braun E. and Meer J. van der, (2007). *National Policy Responses to Urban Challenges in Europe*, Euricur, Ashgate, Aldershot.
- Bryx A. and Jadach-Sepiolo A. (Eds.) (2009). *Rewitalizacja miast w Niemczech*, Instytut Rozwoju Miast, Kraków.
- Bryx M. (1999). “Finansowanie rozwoju budownictwa mieszkaniowego w miastach”, *Monografie i Opracowania*, No. 452, Szkoła Główna Handlowa, Warszawa.
- Cesarski M. (2007). “Sytuacja mieszkaniowa w Polsce w latach 1988-2005-Dziedzictwo i przemiany”, Oficyna Wydawnicza SGH, Szkoła Główna Handlowa, Warszawa.
- Dodd J., Fox J., Guentner S., Provan B. and Tosics I. (2013). “Housing investment supported by the European Regional Development Fund 2007-2013: Housing in sustainable urban regeneration”, The European Commission, Brussels.
- EUROSTAT (2009). “Housing statistics”, available online at: http://epp.eurostat.ec.europa.eu/statistics_explained/index.php/Housing_statistics.
- Guzik R. (Ed.) (2009). *Rewitalizacja miast w Wielkiej Brytanii, Seria “Rewitalizacja miast polskich”*, tom 1, Instytut Rozwoju Miast, Kraków.
- Hermann M. and Leuthold H. (2003). “The consequences of gentrification and marginalisation on political behavior”, Department of Geography, University of Zurich, Zurich.
- Huron A. M. (2005). “Gentrification and individualization: The case of Fehlberliner Strasse 6”, University of North Carolina, Chapel Hill.
- Jadach-Sepiolo A. (2014). “Innowacje w zarządzaniu rewitalizacją miast w Polsce”, in: Bryx M. (Ed.), *Innowacje w zarządzaniu miastami w Polsce*, Oficyna SGH, Warszawa, pp. 111-148.
- Jadach-Sepiolo A. (2010). „Rewitalizacja miast w dokumentach strategicznych w Polsce. Odniesienie do projektu Krajowej Strategii Rozwoju Regionalnego 2010-2020: Regiony, miasta, obszary wiejskie”, in: Skalski K. (Ed.), *O budowie metod rewitalizacji w Polsce—aspekty wybrane*, Instytut Spraw Publicznych UJ, Kraków, pp. 11-27.
- Jadach-Sepiolo A. (2007). “Metody badawcze w analizie procesu gentryfikacji w miastach postsocjalistycznych”, in: M. Madurowicz (Ed.), *Percepcja współczesnej przestrzeni miejskiej*, Wyd. WGiSR UW, Warszawa.
- Jarczewski W. (2009). “Skala degradacji miast w Polsce”, in: Jarczewski W. (Ed.), *Przestrzenne aspekty rewitalizacji. Śródmieścia, blokowiska, tereny poprzemysłowe, pokolejowe i powojkowe*, Instytut Rozwoju Miast, Kraków.
- Kędzierska A. (2011). “Rewitalizacja miast w ramach regionalnych programów operacyjnych”, Ministry of Regional Development, Toruń.
- Korniłowicz J., Łaszek J., Mogiłko M. and Sobotka J. (2003). *Wybrane aspekty finansowania programów rewitalizacji, Fundacja na Rzecz Kredytu Hipotecznego na zlecenie Programu doradczego w zakresie rewitalizacji oraz renowacji zasobów wielkopłytowych*, GTZ, UMiRM, Warszawa.
- Larsen J. N. and Engberg L. A. (2011). “Organisational change and knowledge management in urban regeneration planning”, *Danish Journal of Geoinformatics and Land Management*, Vol. 46, No. 1.
- London B. and Palen J. (Eds.) (1984). *Gentrification, Displacement and Neighborhood Revitalization*, State University of New York Press, Albany.
- Lowe S. and Tsenkova S. (Eds.) (2003). *Housing Change in East and Central Europe Integration or Fragmentation?*, Ashgate, 2003.
- Muzioł-Węclawowicz A. (2009). “Rewitalizacja dzielnic śródmiejskich”, in: Jarczewski W. (Ed.), *Przestrzenne aspekty rewitalizacji. Śródmieścia, blokowiska, tereny poprzemysłowe, pokolejowe i powojkowe*, Instytut Rozwoju Miast, Kraków.
- MRD (2010). “Rozporządzenie ministra rozwoju regionalnego z dnia 9 czerwca 2010 r. w sprawie udzielania pomocy na rewitalizację w ramach regionalnych programów operacyjnych” (Dz. U. Nr 117, Poz. 787).
- Ministry of Infrastructure and Development (2014). *National Urban Policy*, 1st project, Warsaw.
- Rittel H. W. and Webber M. M. (1973). “Dilemmas in a general theory of planning”, *Policy Sciences*, Vol. 4.
- Roberts P. and Sykes J. (2000). *Urban Regeneration: A Handbook*, Sage, London.

- Skalski K. (2009). *Rewitalizacja miast we Francji. Zarządzanie przekształceniami obszarów kryzysowych w miastach, Seria "Rewitalizacja miast polskich"*, Tom 2, Instytut Rozwoju Miast, Kraków.
- Zaniewska H., Thiel M., Urbańska W., Dominiak W., Kornilowicz J. (2005). "Mieszkania dla ubogich w zrównoważonym rozwoju miast. Społeczna, integracyjna i urbanistyczna polityka mieszkalnictwa", Stan i kierunki działań, Projekt badawczy nr H02E 007 25, Instytut Rozwoju Miast, Kraków.
- Zaniewska H., Thiel M., Kowalewski A. T. and Barek R. (2008). "Zrównoważony rozwój osiedli mieszkaniowych i zespołów mieszkaniowych w strukturze miasta", Kryteria i poziomy odpowiedzialności, Instytut Rozwoju Miast, Kraków.
- Zapart J. (1999). *Polityka mieszkaniowa w Polsce: Zarys przemian*, Skrypty Akademii Ekonomicznej im. Oskara Langego we Wrocławiu, Wydawnictwo Akademii Ekonomicznej im. O. Langego, Wrocław.
- Ziobrowski Z. and Jarczewski W. (Eds.) (2010). *Rewitalizacja miast polskich—diagnoza*, Instytut Rozwoju Miast, Kraków.
- Żarski T. (1991). "Skala stref niedostatku i biedy mieszkaniowej", *Sprawy mieszkaniowe*, Vol. 1, No. 4, Instytut Gospodarki Mieszkaniowej, Warszawa.
- Żelawski T., Kornilowicz J., Werner W., Zaniewska H. and Thiel M. (2008). "Ocena stopnia degradacji technicznej i funkcjonalnej polskich miast na wybranych przykładach i w oparciu o zgromadzone informacje, Raport w projekcie PBZ-MNiSW-4/3/2006", Zakład Mieszkalnictwa, Instytut Rozwoju Miast, Warszawa.

The Difference between Collective and Individual Culture Based on Leadership, Communication and Interpersonal Relationship

Sellyv Annekinda, Noor Siti Rahmani
(Faculty of Psychology, Universitas Gadjah Mada, Indonesia)

Abstract: The aim of this study is to understand the aspects which give influences to employee's working performance. Data was collected used questionnaire and interview with 45 subjects. Interview was conducted to 15 employees out of 121 employees working in one oil company in Jakarta, Indonesia. The result of this study showed that leader's individual or collectivist culture may give influences to employee's working behavior. Both, individual and collective culture, have their own pluses and minuses. Therefore, employees are expected to be able to adapt and taking positive sides from both cultures. Employees are also expected to have better and closer interpersonal relationship with their working colleagues. Also, lower interpersonal relationship between each departments may cause employee's performance become less maximum and make it more difficult for the organization to reach their goals and targets.

Key words: collective culture; individual culture; leadership; interpersonal relationship

JEL code: L290

1. Introduction

Right now, we are already entering the era of globalization. Globalization is a new era where changes happen faster in all aspects of life. This cause competitions between countries also grow more rapidly, especially in economic sectors, such as competitions to rule natural resources and markets and to sustain the already-available market.

According to Global Competitiveness Index (CGI)'s survey on 2012-2013, Indonesia's competitiveness had grown from ranking 50 to ranking 38 with overall score 4.53. But this score is still far below Switzerland with 5.67. For ASEAN level, Indonesia's competitiveness is still below Singapore, which stood in ranking 2, Malaysia in ranking 24, Brunei Darussalam in ranking 26, and Thailand in ranking 37 (Vivanews, 2013).

Human resources is one of organization's assets which cannot be replaceable by technology and play the main role in all organizational activities. Organizations may give unlimited facilities, but that will be useless without competent human resources' quality. Therefore, it is necessary for all organizations to provide their human resources with trainings to grow the employee's quality. Human, with all their skills and knowledge, may be able to use and take advantages of other resources to reach organization's goals and success.

Employee's performance may influence organization's success, in which, employees with low performance

may cause damage or loss to organizations. It is very important for an organization to sustain and develop employee's performance. One factor that cause employee's performance leader's culture in organizations.

Cultural background is understood as a culture that construct personal characteristics, such as, way of thinking, feeling, behaviors. All of those characteristics may create concept, ideas, and certain attitudes that differentiate one individual from one culture to another individual from another culture. Supported by Hofstede and Hofstede's (2005) research which showed that manifestation from cultural background differences can be seen from symbols (language), role model, rituals (cultural activities) and values. From these 4 cultural manifestations, values become the most prominent factor that influence one's attitude in responding certain stimulus.

Individual's values may influence attitudes and behaviors all aspects in life. The influence of these personal values may also be seen in how a person behaves as an employee in a working context. Robbins (2001) stated that individual's cultural values may give different perspectives, values, attitudes and beliefs in each employee.

In the attempt to understand different values in organization, Hofstede and Hofstede (2005) conducted a research to employees in multinational companies from many countries with different cultures. The result of the research showed that there are 5 cultural values, which are, power distance, uncertainty avoidance, individualism-collectivism, masculinity, femininity, and long term-short term orientation. The cultural values may differ between countries.

As previously stated, cultural values may affect individual's behavior in workplace, including individualism-collectivism value. This value is assumed as being able to affect individual's behavior in organization. The employees working in the oil company in Jakarta come from different cultures, be it languages, cultures, races, and religions. Unfortunately, cultural differences between national leaders and expatriate leaders can be one aspect that cause low employee's performance. The leader's collective and individual cultures become main concern to develop employees' performance, by taking positive side from both cultures.

2. Literatures

In Hofstede's (1984) research, it was stated that culture where individual grows and learns how to socialize can form certain mental program which may affect how one thinks, feels and behaves. There are 3 mental programs, such as:

(1) Universal Level

Universal level is the most basic level in these sets of mental program. This level is understood by all cultures and everyone in all societies. The example of this level is expressive behavior, such as, laughing or crying.

(2) Collective Level

Collective level is the second level in these sets of mental program. This level is adopted in groups, but not to all societies. The example of this level is language, attitudes towards parents, social interactions, social norms.

(3) Individual Level

Individual level is the most unique of all. It reflects how one's personality developed under the influence of cultural and social power.

Differences between collective-individual dimensions come from the differences between social and economic development, and technology development in certain countries (Hofstede, 1991).

**The Difference Between Collective and Individual Culture Based on Leadership,
Communication and Interpersonal Relationship**

In a more complex culture, there will be more lifestyle choices. Therefore, it can be understood that in individualist culture, people tend to have more lifestyle choices compares to collectivist culture (Triandis, 2001).

The assets of one country is also aligned with individualist-collectivist continuum. Hofstede (1991) stated that there is a positive relation between country's assets with the people's individualist orientation. In developed countries, transportations, telecommunications, televisions and internet is widely available. This affects the lesser needs for people to interact with other people. People also think that they can live and work on their own without having to work with others. In this situation, values and norms do not develop as good as in collective cultures, where being passive is not a possible option.

Hofstede (1991) defined an individualist society as a society with looser interpersonal relationship between people. Everyone is expected to take care of themselves and their nuclear family. In an individualist society, an individual is independent from their group. They prioritize their personal goal above group's goal. Their behavior is based on attitude instead of social norms. When facing conflicts, individualist societies would prioritize justice and fairness, that it is common for them to take conflicts to courts (Triandis, 2004). For further detail of collectivist and individualist culture, can be seen in Table 1 below.

Table 1 Differences between Collectivist and Individualist Culture

No.	Aspects	Allocentrist (Collectivist)	Idiocentrist (Individualist)
1	Self Definition	Reflecting themselves on 30%-50% of social contents.	Reflecting themselves on approximately 0%-20% of social context.
2	Self Estimation	Based on togetherness instead of achievement.	Put achievement as a priority.
		Tend to maintain social stability.	Tend to dominate.
		Low self estimation, easily gets shy, tend to be affiliative, sensitive to social rejections.	
3	Ethnocentrism	Positive attitudes to group where one belongs and have negative attitudes towards other groups.	Have far emotional distance between one self and another.
		Helping other group members is a must.	Helping other group members is a choice.
		Lying is acceptable in order to save the group from shame and humiliations.	Having a self belief that one must define themselves (individualist characteristic will tend to be honest and more authentic).
4	Morality	Doing what is expected from group	Put fairness as a priority in resources' sharing.
		Put togetherness as a priority in resources' sharing.	
5	Communication	Put more attention to context than content.	Put more attention to "what is said" rather than to "how it is said".
		Put more attention to voice, body language, eye contact, and movement.	Put more attention on language using.

In countries with individualist culture, employees are expected to work in order to satisfy their passions and to develop and achieve their personal goals in their jobs. In this culture, it is very important for management to identify and employ people with similar goals and passions with organization. Recruitments are mostly done with selection interviews and personality testings. These procedures help management to make sure whether the employees will reach satisfaction and organization's goals at the same time (Hofstede, 1991).

Collectivist culture is defined as a social characteristic in which an individual is integrated to their environment since they were born. This cohesive environment will protect individual for their whole lifetime with obeying the environment's rules as the requirement (Hofstede, 1991). Societies are formed on related individuals who prioritizes group's goals, and behave as group's norms in communal forms (Triandis et al., 1995). During conflicts, the main focus will be on maintaining the relationship's stability. Conflict resolution is done through mediation conflict to avoid worsening relationship (Triandis, 2004).

Employees in collective oriented organizations will tend, not only to accept organization's goals and passions, but also to maintain loyalty and obedience to organizations. Employees' attitudes towards organizations will be based on "what I have to do" instead of on "what I want to do". Most of the times, employees are fired not because of bad performance, but because of loyalty, disrespecting leaders, and disobedience issues (Hofstede, 1991).

On Hofstede's (1991) research, Indonesia has the lowest individualist score, with overall score 14, compared with other Asian countries (23) and the rest of the world (43). Therefore, Indonesia is classified as a collective society, which is society with high commitments to group, be it family or other groups where individual belongs, including workplace. Loyalty in collective culture is everything. Loyalty is even put above rules and valid laws. Besides, society also put more attention to a strong interpersonal relationship between one another, and that everyone is responsible for other group members. According to Triandis (2004), not all individuals in collective society is an allocentrist individual, even though the majority of people in collectivist culture are allocentrist individuals. Therefore, it can be assumed that allocentrist character can also affect employees' working behavior in Indonesia.

3. Methodology and Model

(1) Area Limitation

This study is limited to one multinational oil company in Jakarta, Indonesia.

(2) Subject Limitation

Subjects for this study are permanent employees in one multinational oil company in Jakarta, Indonesia. Total employees working in the headquarter in Jakarta is very limited, with only 121 employees. Most of the employees work in the drilling sites.

(3) Data Collection

- Questionnaire

Questionnaires are given to subjects to find a wider mainframe of things that need to be developed, and also to measure employee's perceptions in organizations and in groups. Another aim of this questionnaire is to analyze relationships between variables that influence organization's management.

Questionnaire is constructed based on The Organizational System theory by Kast and Rosenzweig (Smither, Houston, & McIntire, 1996).



Figure 1 The Organizational System

The Difference Between Collective and Individual Culture Based on Leadership, Communication and Interpersonal Relationship

- Interview

Interview is conducted to find deeper information from questionnaire's results. Interview is done individually to all levels, including staffs and managers.

(4) Data Analysis

- Content Analysis

Content analysis is done by analyzing qualitative data, such as questionnaire descriptive data and interview results. Before conducting this process, researcher was conducting a coding process from all subjects' interviews. This coding process was aimed to classify responses according to theoretical aspects. After coding process was done, researcher was doing data tabulation so that the information can answer the research question. From the tabulation column, we moved to quantitative responses to see which aspects have the most frequent responses in organizations.

- Statistic Analysis

Statistic analysis is conducted by doing quantitative data analysis, such as analyzing questionnaire's data. In doing statistic analysis, researcher was using Microsoft Excel to find lower mean score and higher means score from all items and then researcher rated the aspects from low to high.

4. The Findings

(1) Questionnaire Results

The Organizational Questionnaire which was given to the respondents contents 22 items. Researcher gave 107 questionnaires and got 45 questionnaires back. The rest of the questionnaire was not given back to researcher by the respondents due to respondent's activities and loss of questionnaires.

Based on the questionnaire's result, it is shown that decision making and interpersonal relation aspects have highest scores which means that the effectivity of employees' performance is low. Employees find some obstacles in decision making process. This is caused by the influence of leader towards all decisions taken. Employees feels that every departments are only responsible for their own groups and create an individualist environment in each departments. This cause interpersonal relations between each departments become looser and less closer.

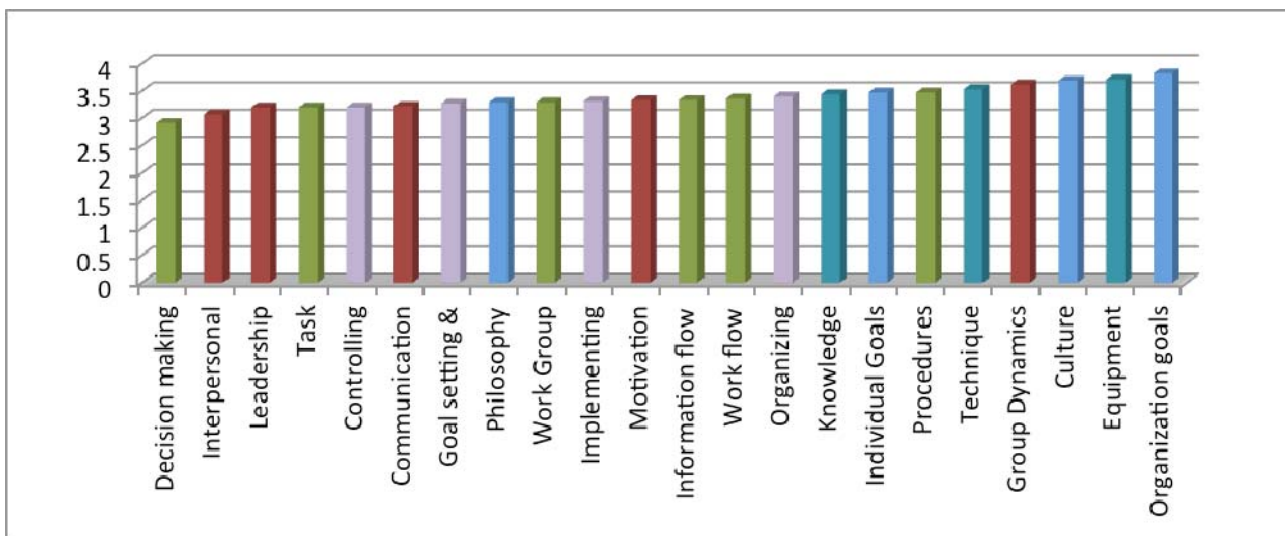


Figure 2 Diagram of Item's Mean Result Left to Right

(2) Interview Results

Researcher did interviews to 15 respondents and got the result that psychosocial subsystem have highest score in leadership aspect. There are some diagnoses gotten from the interviews. Researcher cited some most important quotes from interview results.

- Leaders are not aware of their subordinates, can be seen from citation below :

“leadership has to take everything into account, all scopes in organizations. When you are a leader, you cannot just look at yourself and how you are going to develop yourself but never think of your subordinates. Your subordinates also need to be developed. Do not make your subordinates ended up developing themselves because the leader is too busy thinking about themselves” (S6, B456-462, H11)

Citation above showed that leaders tend to be individualist, in which leader believe that they have to define how they are going to develop themselves and they apply the same things to their subordinates.

- Leaders do not appreciate subordinates’ work, can be seen from citation below :

“some people feel dissatisfied, like they tried to work more but their works are not appreciated. Some feel some mismatches with leader’s personality and system.” (S7, B309-318, H9)

“some of my ex-colleagues which are now working in other companies know how it feels to be led by the previous boss. Previous boss had different style with our current boss, more like cowboy style. You need some leave, you go get some leave, I will approve your leave notes. Our current boss is more detail-oriented, even the smallest detail is taken seriously. The current boss also likes to comment about everything, about when we come to office and when we go home. Some feel more comfortable with the previous boss.” (S7, B327-364, H10)

Citations above showed that there are leaders from both cultures, in which leaders with collectivist culture tend to maintain relationship stability, so that when the subordinates need some annual leaves or going home early, leader did not make it difficult and approve it right away. Meanwhile, individualist leader focused on achievement and being the best, that leader took, even smallest details that may affect performance, into accounts.

- Collective leaders (S2, B260-275, H6)
- Not being a clear leader, can be seen from citation below:

“a successful leader is a clear leader. Subordinates will understand the order easily with a clear leader. Yeah, but some leaders here like to trick other people. Even some leaders think that giving details are none of his business. I just give the bottom line, you find out the rest yourself.” (S12, B465-469, H13)

Citation above showed that some individualist leaders think that helping group members is a choice for them. They already gave the bottom line of the job, but actually the subordinates still need more helps and guidance from the leader to achieve maximum results.

- Leaders are not sensitive to feedbacks, can be seen from citation below :

“yes, we can give feedback to our leaders, but when you are already in a high position, as a leader, then you tend not to listen to what your subordinates think about you and your leadership” (S7, B647,-653, H16)

“we also have some people who does not listen to feedbacks. They think they are seniors, so they do not have to listen to other’s opinions.” (S12, B500-503, H14)

- Leaders cannot motivate their subordinates, can be seen from citation below :

“we want to have a leader just like motivation trainers. How we work, how we have to behave with our works, we don’t have that kind of people here.” (S16, B232-229, H5-6)

From citations above, we can see the differences between leader’s collectivist and individualist culture may

affect employees' performance. We can find collectivist leaders in national (Indonesian) leaders and individualist leaders in expatriate leaders.

According to interview and questionnaire result's integration, researcher understood that highest score was found in leadership aspect (16.67%) communication aspect (15%), interpersonal relation aspect (13.33%), culture aspects (11.67%), task delegating and implementation aspect (10%), facilities aspect (5%), human resources, standard of competency, and standard of procedures aspects (3.33%), motivation, team work, information delivering and target achievement aspects (1.67%).

These results also supported leadership aspect as the main factor that may influence employees' performance. Anyway, the core problem of this research is leader's collectivist and individualist culture, which may affect employee's working behavior and cause inter-department interpersonal relations become loose and less close. Some employees came up with a solution to create some employee gathering outside of working hours in order to make closer relationship between employees. This solution can be seen from citation below:

"no, we do not have that kind of gathering now. We had it in previous time, like 3-4 times per year. But now, it is only like 1 times per year maximum. It was almost every month before." (S5, 332-340, H7)

"I really hope we can do some activities together. Fun activities to tighten up our relationship. Yes, we do have some gatherings, but it is just like eating out and talking and done. I would prefer we have some meaningful games to improve our relationship." (S7, B686-693, H17)

"no, we do not have it. Only this kind of green day. I don't know what is that." (S9, B821-823, H19).

Besides, researchers also find some gaps between seniors and juniors, and also between leaders and subordinates, can be seen from citation below:

"there are still some gaps between seniors and juniors. You can see it, every time we have gatherings, juniors only hang with juniors and vice versa. We are not totally blended in." (S7, B777-783, H19)

Cultural aspect is also another main focus of this research, considering culture is what makes people, in general, and leader, in specific, become and individualist or collectivist person. This thing can also cause looser inter department interpersonal relation. Data shown that leaders may have different cultures from one another, can be seen from citation below:

"I do feel big differences between Indonesian leaders and expatriate leaders. When it comes to expatriate leaders, they are more open. If I make a mistake, they will correct it right away. Sometimes in a hard way, but at least, I know what my mistakes are. Meanwhile, with Indonesian leaders, sometimes they do not tell me if I am mistaken. They just get quite shut and I do not know even if I made mistakes or not." (S1, B295-300, H6-7)

Besides, seniority is still something that is very prominent in this company, can be seen from citation below:

"yes, here we still have seniority." (S5, B121-131, H3)

"before, I was placed in finance department. Then I moved here, but my previous boss needed me to fill feedback form for him. Yes, I fill it the way it is. Those expatriates are rude, they do not even talk to us when they met us." (S12, 543-545, H15)

5. Summary and Conclusion

According to diagnosis, researcher found leader's collectivist or individualist culture affect employee's working behavior, in which this is aligned with Triandis' (2004) research. Both, collectivist and individualist

The Difference Between Collective and Individual Culture Based on Leadership, Communication and Interpersonal Relationship

culture, have their own pluses and minuses, therefore employees are expected to adapt to those cultures and take the positive side from each cultures. It is also recommended for employees to have closer interpersonal relation, because looser interpersonal relation may cause lesser employees' performance and make it harder to achieve organization's goals.

References:

- Brown D. R. and Harvey D. (2006). *An Experimental Approach to Organizational Development*, New Jersey: Pearson Education, Inc.
- Cummings T. G. and Worley C. G. (2009). *Organization Development and Change* (8th ed.), Canada: Thompson-South Western.
- Hadi S. (2001). *Metode Research Jilid I*, Yogyakarta: ANDI.
- Hofstede G. (1984). *Culture's Consequences: International Differences in Work-Related Values*, Beverly-Hills: SAGE Publications.
- Hofstede G. (1991). *Culture and Organization, Software of the Mind*, London: McGraw-Hill.
- Hofstede G. and Hofstede G. J. (2005). *Culture and Organizations: Software of the Mind*, New York: McGraw-Hill
- Scannell E. and Newstrom J. (1991). *Still More Games Trainers Play*, New York: McGraw-Hill, Inc.
- Triandis H. C., Chan D. S., Bhawuk D. P. S., Iwao S. and Sinha J. B. P. (1995). "Mutlimethod probes of allocentrism and idiocentrism", *International Journal of Psychology*, Vol. 30, No. 4, pp. 461-480.
- Triandis H. C. (2001). "Individualism-collectivism and personality", *Journal of Personality*, Vol. 69, No. 6, pp. 907-924.
- Triandis H. C. (2004). "The many dimensions of culture", *Academy of Management Executive*, Vol. 18, No. 1, pp. 88-93.

Ethics and Professional Conduct for Sustainable Development: A Case of Malawian Construction Industry

Rodrick Lengama Chilipunde¹, Agnes Kadyampakeni Kaima²

(1. University of Malawi, The Polytechnic, Blantyre 3, Malawi; 2. Ministry of Works, Buildings Department, Lilongwe, Malawi)

Abstract: The need for proper professional conduct to be adhered to is well documented and cannot be overemphasized. Adherence to the code of conduct ensures that project period, cost and quality standard are achieved within determined budget. This ensures that stakeholders achieve value for money through projects that are constructed at a minimum cost. However, there is limited adherence to the code of conduct among professionals. The aim of this study was to investigate ethical issues and professional conduct. The methodology used included an extensive literature review and field survey conducted among 58 construction professionals. Empirical study used the questionnaires instrument and random sampling. The critical findings from the literature were that the code of ethics is not adhered to. The field survey confirmed the issues that were raised in the literature reviewed and established that some of the causes of failure to uphold the code of conduct are selfish desires, meagre salaries and stiff competition for fewer jobs. Further to that, the study highlighted some of the effects of non compliance to the code of conduct as poor quality of infrastructure, clients' dissatisfaction, late completion of projects, clients' loose trust for construction professionals this leads to the poor image of the industry. The findings make an invaluable contribution to the research for solutions to ethical challenges in the Malawian construction industry and provide insight for further research in investigating ways of addressing unprofessional conduct. The implications of the findings are that unless the limitations named above are resolved, non-compliance to the code of conduct will remain a problem. The study recommends that the professionals who conduct themselves unethically should be given stern punishment and in some cases be banned from practicing. It is suggested that unethical conducts can be minimized through conducting workshops regarding ethics; and introducing ethics as a subject in universities. By establishing the core values with regard to ethics and professional conduct, the study has therefore contributed to the enhancement of the understanding of this illusive subject.

Key words: unethical; Malawian; construction; code of conduct; professionals

JEL code: Y

1. Introduction

The codes of ethics are a set of guidelines that define acceptable behavior for construction practitioner with

Rodrick Lengama Chilipunde, BSc Constr. Econ, BSc (Hons) QS, MSc Built Environment (PM), University of Malawi, The Polytechnic; research areas/interests: ethics in construction industry. E-mail: lengama2@gmail.com.

Agnes Kadyampakeni Kaima, Ministry of Works, Buildings Department, Lilongwe, Malawi. E-mail: agiekaima@gmail.com.

the aim of protecting the interest of the profession and the public (Fewings, 2009). Fewings (2009) outlined professional ethics requirements of a quantity surveyor are integrity, honesty, accountability, to act within competence, objectivity, treat others with respect, set good example and courage to make a stand. Codes of ethics reinforce the moral principles and commitments of construction practitioners (NCIC Magazine, 2009). The Director of Public Procurement (ODPP) formulated ethical standards for procurement personnel in Malawi. The Public Procurement Act, 2003 and the Procurement Regulations, 2004 outlines, among other things, ethical standards that public officials involved in public procurement must comply with (ODPP, 2004). Construction professionals therefore are expected to exhibit the highest standards of professionalism, besides, the services provided require honesty, impartiality, fairness and equity. However, there is evidence to suggest that code of ethics is not adhered to (NCIC Magazine, 2009). The objectives of the study were to find-out the following:

- To investigate the causes of failure to uphold the code of conduct;
- To assess the effects of non-compliance to the code of conduct, and
- To find ways of enforcing the code of conduct in the construction industry.

2. Literature Review

2.1 Introduction

Ethics in the Malawian Construction Industry have become a key topic. Ntonya (2010) bemoans rampant corruption in the Malawian construction industry. Chiocha (2009) reported that the industry has its own characteristic methods of project procurement which are different from other industries. Construction practitioners obtain work through open, selective and negotiation tendering procurement methods. These processes may prove to be competitive and construction practitioners fear that their chances of being awarded a particular contract are very slim hence indulge in unethical behaviours to obtain contracts. It is argued that ethics are a fundamental factor for professionals (Poon, 2003). Chalkley (1994) claimed that for a profession to command public confidence and trust, largely depends on two essential elements; professional knowledge, and ethical conduct. It is therefore argued that the cost of ignorance of ethics is very high. It is believed to have a significant impact on the quality of services that are provided and thereby on the resultant public perception and image of the profession (Poon, 2003). The code of ethics comprises rules and regulations that govern a person's behavior (NCIC Magazine, 2009). The Oxford Learner's Dictionary (2000) defines ethics as moral principles that control or influences a person's behavior. Thus, ethics involve morals, integrity, objectivity, transparency, selflessness, honesty, responsibility and accountability on an individual. The ethical standards contained in the Public Procurement Act, 2003 and the Public Procurement Regulations, 2004 sets out rules and principles of good behavior for public officials involved in public procurement (ODPP, 2004). The Public Procurement Act, 2003 and the Public Procurement Regulations, 2004 contain, among other things, ethical standards that public officials involved in public procurement must comply with. The Director of Public Procurement has, therefore compiled the ethical standards contained in the Act and regulations for distribution to public officials involved in public procurement. It is expected that the observance of the ethical standards will ensure the impartiality, transparency and effectiveness of public officials in the performance of public procurement (ODPP, 2004). It is argued that ethical standards provide practical, straightforward and clear guidance to public officials involved in the public procurement on how they should conduct themselves in the performance of their duties. It is required that all public officials involved in public procurement are expected to adhere to the ethical standards (ODPP, 2004). It

further advocates the following principles: duty to act fairly; principle of non discrimination; avoidance of conflict of interest; confidentiality and use of information; duty to commit or abet corruption; gifts and hospitality; post employment restrictions; and duty to report unethical conducts. ODPP bidding documents for the procurement of minor works; instructions to bidders Clause 19; the National Competitive Bidding and the International Competitive Bidding; instructions to bidders Clause 36; they all highlight more on abetting corrupt and fraudulent practices. It states that the Government of the Republic of Malawi requires that procuring entities, as well as bidders and contractors under public-financed contracts, are to observe the highest standard of ethics during the procurement and execution of such contracts (ODPP, 2004). In pursuance of this policy, the ODPP, 2004 define the terms set forth as: corrupt practice means the offering, giving, receiving or soliciting, directly or indirectly, of anything of value to influence the action of a public official in the procurement process or in contract execution; fraudulent practice means a misrepresentation or omission of facts in order to influence a procurement process or the execution of a contract; collusive practices means a scheme or arrangement between two or more bidders, with or without the knowledge of the procuring entity, designed to establish prices at artificial, non-competitive levels, and coercive practices means harming or threatening to harm, directly or indirectly, persons or their property to influence their participation in a procurement process, or affect the execution of a contract. Vee and Skitmore (2003) present findings of a study on ethics in Australia of which 45 percent of the professionals had an ethical code of conduct in their organizations, with the majority 84 percent considering good ethical practice to be an important organizational goal. It was agreed by 93 percent of the respondents that “business ethics” should be driven or governed by “professional ethics”, with 84 percent respondents stating that a balance for both the requirements of the client and the impact on the public should be maintained (Vee & Skitmore, 2003). Unethical conducts by construction professionals are immoral behaviors that are practiced by professionals when conducting their day to day duties and as they interact with different stakeholders such as contractors. Corruption is defined by De Graaf (2007) as behavior of public officials which deviates from accepted norms in order to serve private ends, but the European Council defines corruption as requesting, offering, giving or accepting, directly or indirectly, a bribe or any other undue advantage or prospect thereof which distorts the proper performance of any duty or behavior required of the recipient of the bribe (Fewings, 2009). Phiri and Smallwood (2010) reported that the construction industry in Malawi is ranked as the most corrupt industry relative to other sectors. Large payments are made to gain or alter contracts and circumvent regulations (Transparency International Report, 2005). Kenny (2007) corroborates that the impact of corruption goes beyond bribe payments to poor quality of constructed infrastructure with low economic returns, and low funding for maintenance. Corruption plays a major role in the awarding of contracts in terms of bribery. Guash (2005) concurs with the report above and stated that some contractors use bribery in order to be awarded contracts. Gulati and Rao (2006) argue that all forms of government are susceptible to corruption in the form of bribery, extortion, cronyism, graft, and embezzlement. (Moon, 2002) agrees that corruption poses a serious development threat. According to Broadman and Recanatini (2000) as cited Phiri and Smallwood (2010) corruption is rooted in poorly functioning institutions, as well as in policies that undermine free trade and competition. The main parameters which drive corruption are greed, power, selfish desires, and success (Phiri & Smallwood, 2010). The sector is most prone to corruption was “construction/public works”. Transparency International’s Corruption Barometer (Transparency International, 2005) as cited by (Chiocha, 2009) stated on more than one occasion; and Price Waterhouse Coopers’ Global Economic Crime Survey support these results, and find corruption to be relatively more common in infrastructure

industries. Chilipunde (2009) contends that reasons for the existence of corruption and bribery dwell on social and economical grounds. Social principles claim that human nature has fallen into greed and a selfish attitude of “me first”. Van Der Walt et al. (1998) stated that economic principles create a climate for corruption and bribery, the principles of exchange mean that people are paid for what they do. If wages are low people will be ready to earn extra money dishonestly to survive. Limited resources and practical shortages force people to pay bribes to obtain things (Chilipunde, 2009). In addition the Ant Corruption Bureau (ACB) stated that there is need to engage an extra gear in fighting corruption which still poses a challenge in government institutions as corrupt practices continue to drain government revenue. It is therefore imperative that institutions take a lead in fighting the scourge from within (Nthara, 2010). Phiri (2011) claimed that economic development suffers when contracts are given to incompetent people through corruption. The Malawi nation has not forgotten how, during the United Democratic Front government, the Ministry of Education is said to have disbursed over MK 187 million to contractors for constructing teacher’s houses and school blocks who never did the job satisfactorily, if at all. Chiocha (2009) comments that it is possible at one point or another, within the confines of a construction project, such form of corruption such as extortion, bribery, theft, fraud, collusive bidding or rigging may occur. Professional advisers and consultants are normally the first port of call for clients of the construction industry. It is further observed that the absence of code of conduct in Malawi promotes corruption (Thom, 2010). It is noted in the National Anti Corruption Strategy (2008) that corruption retards development. It is reported that funds meant for development are put in people pockets for personal benefits; hence development suffers (ACB Strategy, 2008). The ACB (2008) defines abuse of office as is the misuse of ones official position to benefit oneself or another person. Public officers or any other person in position of official power are entrusted with such powers for the benefit of the public. Misuse of such powers is, therefore, tantamount to corruption (ACB Strategy, 2008). Ng’ong’ola et al. (2001) stated that ensuring maximum competition in bidding should reduce the scope of collusion and therefore reduce prices. This involves not only ensuring competition within the process, but also rules banning direct negotiation with firms on the basis of unsolicited proposals and strict controls on negotiation. However, Knack and Azfra (2003) argued that competitive bidding alone is clearly inadequate to ensure better outcomes. To support the bid design process, whatever the level of competition, there is a significant role for benchmarking prices to provide guidelines for output-based pricing and also to provide a “red flag” for overbidding. It is observed that an important aspect of ethics in the Construction Industry is personal ethics — often interpreted by the construction professionals as just treating others with the same degree of honesty that they would like to be treated. It has been suggested, however, that professionals in general tends to believe that their obligation to the client far outweigh their responsibility to others, such as the public (Fewings, 2009). Misconduct amongst the construction practitioners has led to the industry’s image of providing substandard work, shoddy workmanship and short-pile malpractices. The ethical misconduct of construction practitioners and professionals has led to government attention and public concern. A high level of ethical performance implies a high level of professional performance and, hence, a low level of client dissatisfaction. Both are relational to the public image of the profession. Poon (2003) asserts that professional ethics are virtually at low. The NCIC has a written code of conduct for consultants and another for contractors. The rationale behind is to guide built environment practitioners to act in the best professionalism possible (NCIC Magazine, 2009). The NCIC (2009) has a written code of conduct for its professionals to follow. The list of the requirements given in the code of ethics for consultants is as follows to: hold paramount the safety, health and welfare of the public; perform services only in

areas of their safety; issue public statements only in an objective and truthful manner; act for each employer or client as faithful agents or trustees; avoid deceptive acts; and conduct themselves honourably, responsibly, ethically, and lawfully so as to enhance the honour, reputation, and usefulness of their profession. Code of ethics for contractors — under the NCIC (2009), it is stated that contractors must perform under a standard of behavior that requires adherence to the highest principles of ethical conduct. The fundamental principles are as follows to: give utmost consideration to the safety, health and welfare of their workmen and the general public; perform services only in areas of their competence; build their reputation on the merit of their services and shall not compete unfairly with others; act for each employer or client as faithful agents or trustees; at all times refrain from corruption and corrupt practices; avoid all deceptive acts; conduct themselves honorably, responsibly, ethically, and lawfully so as to enhance the honor, reputation, and usefulness of their services.

3. Research Design and Methodology

3.1 Introduction

The aim and purpose of this chapter is to outline the research methodology utilized in the study; to comment on how the research was controlled and monitored, and to ensure validity and reliability of the research data and procedures associated with the subsequent and presentation of the data. Buys (2002) states that research methodology concerns the way in which we proceed to solve problems. The study was commissioned to find out why professionals in private and public sector do not adhere to the professional code of conduct and what measures should be taken to deal with these professionals in order to maintain the honor, reputation and usefulness of the construction industry. The research was conducted in Lilongwe and Blantyre cities owing to its easier accessibility, it is where most professionals are and to limit expenses. According to Crowell (1994) cited by Chilipunde (2007), there are two major methods for collecting and analyzing data. These include quantitative method of enquiry into social or human problems based on testing theory composed of variables, tables, measured with numbers, and analyzed with statistical procedures in order to determine whether the predictive generalizations of the theory holds true; and qualitative method of inquiry which is a process of understanding a social or human problem based on building a complex, holistic, picture, formed with words reporting detailed views of informants, and conducted in a natural setting. Based on the above definitions and the nature of the study used a quantitative study with limited statistical analysis were used to analyzed the collected data. The focus population consists of quantity surveyors, engineers and architects working in private firms registered with NCIC and the public sector. The sample consisted of 30 public work professionals-quantity surveyors, engineers and architects; 30 private consultant professionals. This represented a sample size of 60, large enough, considering the size of Malawi as a country. The primary data consist of information obtained from questionnaires and the responses conducted with the professionals. The aim was to design a simple, clear questionnaire with limited open-ended questions, using a series of check boxes. This could easily be completed by busy executives. Mullins (1994) defines secondary data as already published data collected for purposes other than the specific research at hand. The secondary data was obtained through a review of existing material from journal publications, dissertations, newspapers and the internet. The samples were selected using the random technique of convenience sampling. A self administered questionnaire was hand delivered to all respondents. The structured questionnaire consisted of section A and B.

4. The Results, Data Analysis and Interpretation

4.1 Introduction

The main statistics calculated in the data analysis are the standard deviation, mean and frequency scores. Questionnaires were sent to: 30 public works professionals, 10 private consultant quantity surveyors, 10 private consultant engineers and 10 private consultant architects. By 28 September 2011, 58 responses were collected. This represented a response rate of 97%. This is statistically a large sample, as the size exceeds 30 percent as recommended by (Wisniewski, 1994) as cited by (Chilipunde, 2010). Of the 58 questionnaires received, 77% request a copy of the summary of the findings to be emailed, posted or personally delivered to them. This indicates that there is a high level of interest in the subject area. The questionnaires were distributed to 60 randomly selected respondents, of which 58 were completed and returned. This represented a response rate of 97%.

Table 1 Response Rate

Classification	Questionnaire distribution	Number of responses	Percentage of responses against distribution (%)
Public works professionals	30	28	93%
Private consultant quantity surveyors	10	10	100%
Private consultant engineers	10	10	100%
Private consultant architects	10	10	100%
Total	60	58	97%

Table 1 above, shows that there was bias in the questionnaire distribution where 30 questionnaires were distributed to public works professionals.

4.2 Analysis of Data

The data was analyzed using quantitative research techniques. It is imperative that the reliability and viability of the data be taken into consideration when conducting research. According to Blose (2001) as cited by Chilipunde (2007), the validity of data is defined in terms of whether or not the data measures what it is supposed to measure. Data reliability on the other hand can be defined as whether or not the data measures a representative fraction of the target population.

4.3 Gender

Respondents to the questionnaire were predominantly males accounting to 83.3% while females represented a minority of 16.7%. Table 2 below indicates the gender of respondents. This is a true reflection of the construction industry which is predominantly male.

Table 2 Gender

Classification	Questionnaire distribution	Number of responses	Percentage of respondents against distribution (%)
Male	50	48	96.0%
Female	10	10	100%
Total	60	58	89%

4.4 Age of the Respondents

The age of the respondents is usually related to an experience profile (Hughes, 2003) as cited by Chilipunde (2007). Table 3 indicates that the majority 36.2% of the respondents were between 21 to 30 and 31 to 40 years of age. The data could be proven as reliable due to the fact that the questionnaires were sent mostly to senior staff professionals who are deemed to have a better insight of the profession.

Table 3 Age of Respondents

Age in years	Number of respondents	Percentage of respondents against total (%)
Younger than 20 years	0	0.00%
21 to 30 years	21	36.2%
31 to 40 years	21	36.2%
41 to 50 years	8	13.8%
51 years and order	8	13.8%
Total	58	100%

4.5 Experience Profile

The level of experience of the respondents is of great importance to the credibility of the feedback and the reliability of the research as a whole. Table 4 shows the breakdown of experience in the industry where: 29.3 percent of the respondents have been in the industry between 10 to 14 years, 27.6 percent had between 5 to 9 years of experience, and 25.9 percent had the experience of 15 years and more. The majority of the respondents range between 10 to 14 years. This indicates that those responding to questionnaires had relatively reasonable experience in the industry and their responses could be trusted.

Table 4 Experience in the Construction Industry

Number of years	Number of respondents	% of respondents against total (%)
Less than 1 year	3	5.2%
1 to 4 years	7	12.1%
5 to 9 years	16	27.6%
10 to 14 years	17	29.3%
15 or more years	15	25.9%
Total	58	100%

4.6 Professionals' Status

The professional statuses of the respondents are provided in Table 5 below, the majority of the respondents being senior staff with 63.8%. This is to give us a clear understanding that professionals in different positions at their work places took their time in answering the questionnaire. It is believed that the more senior the respond is better place to know more insight of the organization.

Table 5 Professionals Status

Classification	Targeted population	Number of questionnaires distributed	Number of respondents	% of respondents against total (%)
Director or Principal partner	7	7	7	12.1%
Senior staff	39	39	37	63.8%
Junior staff	11	11	11	19.0%
Trainee	3	3	3	5.2%
Total	60	60	58	100%

4.7 Research Data

4.7.1 Analysis of Data and Problems-adherence to the Code of Conduct

The research data from the questionnaires was used to investigate ethical issues and conduct among construction professionals in public and private sector. An analysis of Figure 1 shows that 84.5% of the

professionals responded that the code of conduct is not adhered to by most professionals in the construction industry.

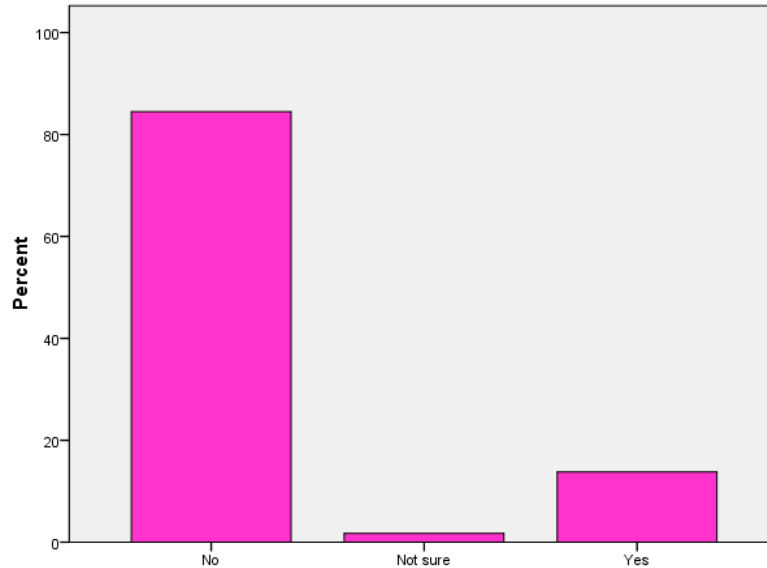


Figure 1 Adherence to the Code of Conduct

4.7.2 The Causes of Failure to Uphold the Code of Conduct

Values ranged between 1, (strongly disagree), and 5 (strongly agree). An analysis of Table 6 shows the level of agreement by the respondents to various questions: The professionals responded that the causes of failure to uphold the code of conduct are; poor salaries, ranked first, with a mean of 4.30, whilst financial pressures is ranked second, with a mean of 4.07. Selfish desires is ranked third, with a mean of 3.88, followed by greed, with a mean of 3.84. Stiff competition for fewer jobs is ranked fifth, with a mean of 3.55. Finally, the respondents agreed that the code of conduct is not available in their work places, with a mean of 3.54.

Table 6 The Causes of Failure to Uphold the Code of Conduct

1 = strongly disagree, 2 = disagree, 3 = not sure, 4 = agree, 5 = strongly agree							
	Frequency					Mean	Std deviation
	1	2	3	4	5		
1.1.1 The code of conduct is not available in work places	6	10	4	20	16	3.54	1.36
1.1.2 Stiff competition for fewer jobs hence contractors resort to bribing in order to obtain jobs	6	5	6	30	9	3.55	1.19
1.1.3 Selfish desires; wanting to have undeservedly more money	1	5	8	29	14	3.88	0.95
1.1.4 The need to attain power in society through enriching oneself	0	11	17	18	10	3.48	1.01
1.1.5 Strong desire to own property through whatever means	6	7	6	28	9	3.48	1.22
1.1.6 Greed; not satisfied with what one earns	1	6	6	30	12	3.84	0.96
1.1.7 Poor salary	0	3	4	23	27	4.30	0.82
1.1.8 Financial pressures	0	1	10	29	16	4.07	0.74

4.7.3 The Effects of Non Compliance to the Code of Conduct

The Figure 2 it is notable that non compliance to the code of conduct leads to poor image of the construction industry, ranking it the highest with a mean of 4.56; and poor quality of infrastructure is ranked second, with a mean of 3.96. Clients' dissatisfaction is ranked third, with a mean of 3.84. Respondents further agree that there is

a high rate of uncompleted projects, with a mean of 3.67. Finally, the professionals responded that there are delays in completing projects, with a mean of 3.57.

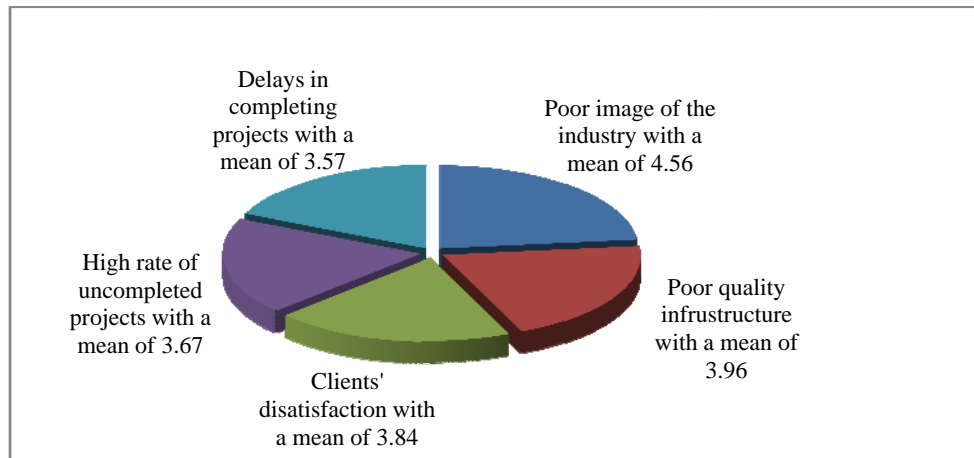


Figure 2 Illustrating the Effects of Non Compliance to the Code of Conduct

4.7.4 Reporting of Unethical Conducts of Other Colleagues to Relevant Authorities

An analysis of Figure 3 shows that 82.8% of the respondents were of the idea that professionals do not report unethical conducts of other colleagues to relevant authorities.

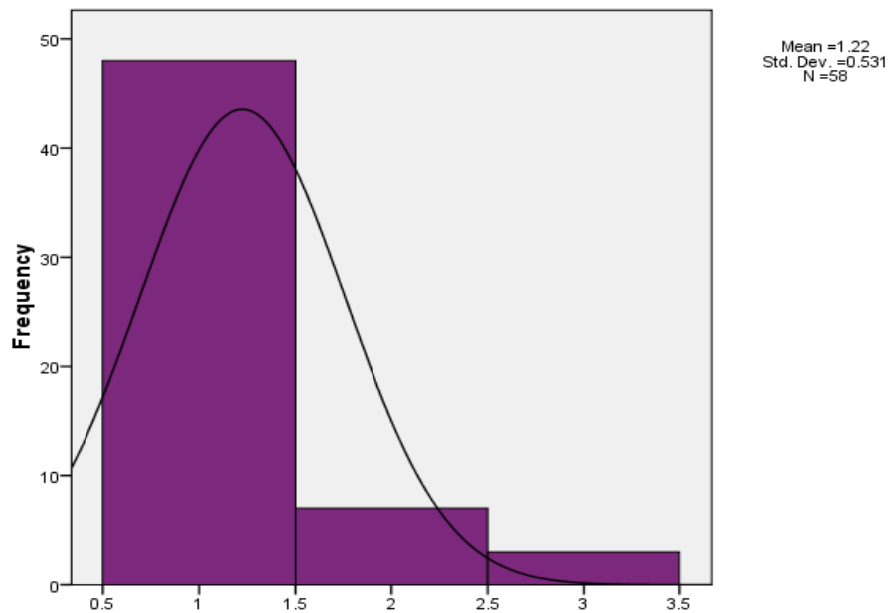


Figure 3 Reporting of Unethical Conducts of Colleagues

4.7.5 The Reasons Why Professionals Do not Report Unethical Conducts of Other Colleagues

Values ranged between 1, (strongly disagree), and 5 (strongly agree). Table 7 shows that the professionals responded that the reasons why they do not report unethical conducts of other colleagues to relevant authorities is because they are also involved in corrupt practices, ranking it the highest with a mean of 3.60. Ranked second, with a mean of 3.58 is the reason that it is taken as a norm; professionals are used to kickbacks.

Table 7 The Reasons Why Professionals Do Not Report Unethical Conducts of Other Colleagues

1 = strongly disagree, 2 = disagree, 3 = not sure, 4 = agree, 5 = strongly agree

	Frequency					Mean	Std deviation
	1	2	3	4	5		
3.1.1 They are also involved in corrupt practices	0	11	6	35	5	3.60	0.90
3.1.2 Fear to report, in return they can also be reported as they are also involved in unethical conducts	4	16	6	25	4	3.16	1.15
3.1.3 Professionals do not know where to report the matter	14	25	5	7	4	2.31	1.2
3.1.4 It is taken as a norm; professionals are used to that habit	7	5	4	27	12	3.58	1.29
3.1.5 They don't care because they are not involved in corrupt practices	13	12	20	8	2	2.53	1.19
3.1.6 Not aware of the existence of corruption	32	21	0	3	0	1.54	0.76

4.7.6 Enforcement of the Code of Conduct

In terms of enforcement of the code of conduct, Figure 4 below — professionals put forward a case that proper disciplinary action must be taken by relevant authorities once reported, with a mean of 4.53. Finally, the professionals responded that offenders should be given strict disciplinary punishment or be banned from practicing depending on the degree of the offence, with a mean of 3.66.

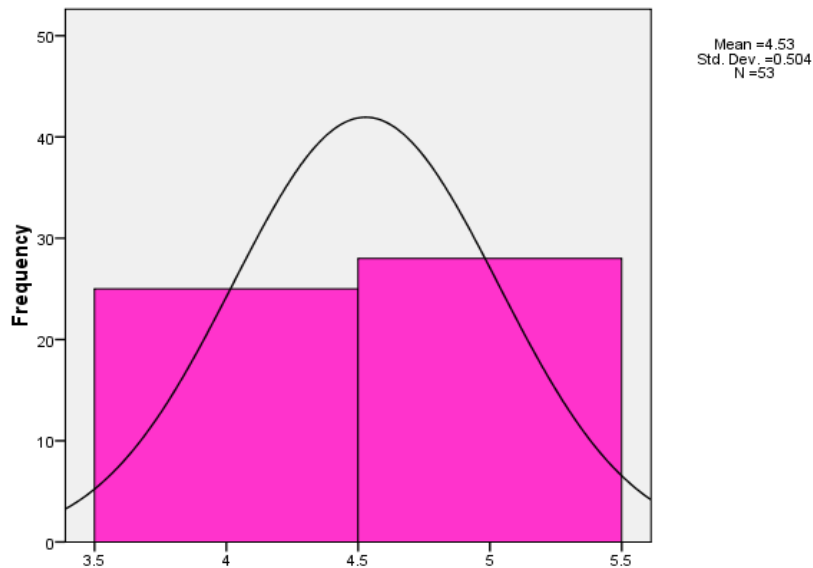


Figure 4 Proper Disciplinary Action Must Be Taken

4.7.7 Minimizing or Eradicating Unethical Conducts of Professionals

An analysis of Figure 5 shows that the professionals responded that unethical conducts can be minimized or eradicated by conducting workshops regarding professional code of conduct, ranking it the highest with a mean of 4.54. Universities should introduce ethics education as a subject is ranked second, with a mean of 4.02. Introduction of confidential reporting system is ranked third, with a mean of 3.98 followed by increasing the professionals' salaries, with a mean of 3.79.

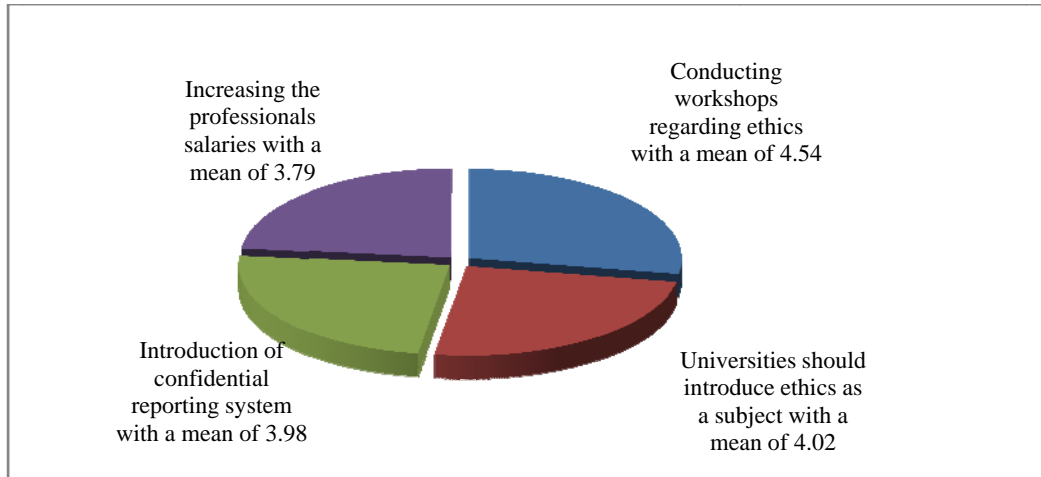


Figure 5 Illustrating Ways of Minimising or Eradicating Unethical Conducts

4.7.8 Which Stakeholders Mostly Indulge in Unethical Conducts?

An analysis of Figure 6 shows that the professionals responded that the stakeholders who mostly indulge in unethical conducts are contractors and politicians, with a mean of 4.38, whilst public works professionals are ranked second, with a mean of 4.11. Other professionals such as suppliers and revenue authorities are ranked third, with a mean of 3.82, followed by private consultant professionals, with a mean of 3.61.

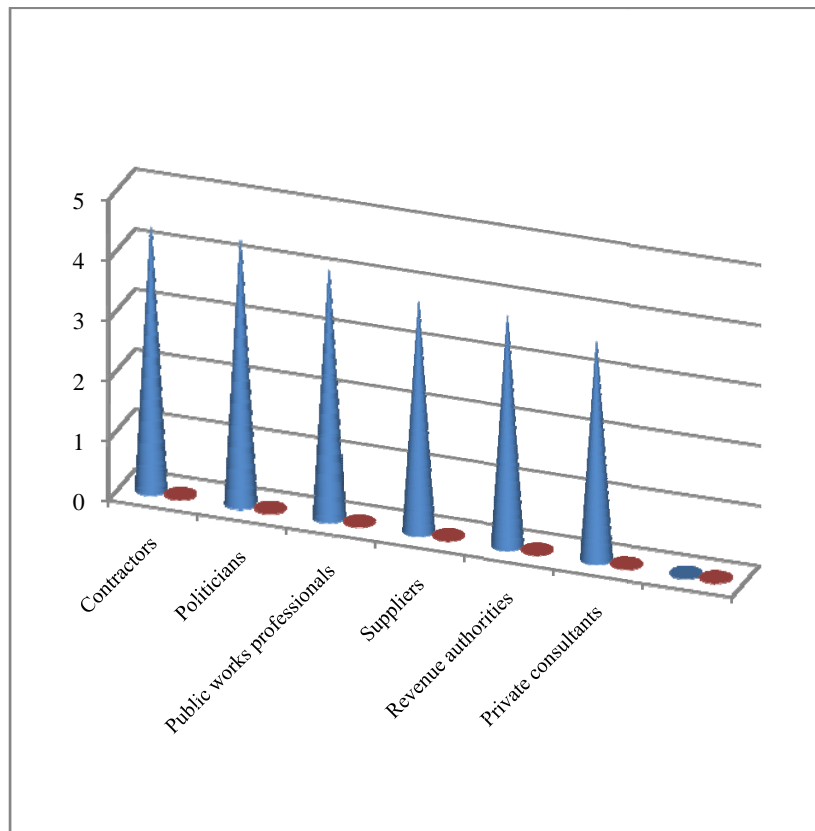


Figure 6 Stakeholders Who Mostly Indulge in Unethical Conducts

5. Summary, Conclusions and Recommendations

It has been concluded that there is disregard to the professional code of conduct by the professionals, and professional misconduct is taken as a normal. Therefore, there is need that proper action to enforce the code of conduct must be taken by relevant authorities and professional bodies to ensure adhere. In addition, there is need for authorities to distribute a code of conduct to all construction professionals. It is clear that despite the existence of the code of conduct, there is limited compliance to the professional code of conduct by the construction professionals. Professionals agree that the causes of failure to uphold the code of conduct are poor salaries, financial pressures, selfish desires, greed, stiff competition for fewer jobs and non availability of the code of conduct in some work places. It has been found that non compliance to the code of conduct leads to poor image of the construction industry, poor quality of infrastructure, client's dissatisfaction, high rate of uncompleted projects and finally there are delays in completing projects. It is apparent from the results of the study that professionals do not report unethical conducts of other colleagues to relevant authorities due to the following: they are also involved in corrupt practices, and it is taken as a norm; professionals are used to that habit. Finally, this study discovered that different stakeholders indulge in unethical conducts only that the degree differs. Stakeholders who mostly indulge in unethical conducts are building contractors, politicians, followed by public works professionals, suppliers, revenue authorities and private consultant professionals. From the research findings, it is clear that ethical issues are very vital in the success and development of the construction industry. The study recommends the enforcement of the code of conduct: proper disciplinary action must be taken by relevant authorities once reported; offenders should be banned from practicing; conducting workshops regarding professional code of conduct; universities should introduce ethics education as a subject; introduction of confidential reporting system, and increasing the professionals' salaries. The study has thus contributed to the identification of non compliance ethics and their significance in the development of the industry. There is also need for further study in order to find strategies that NCIC can devise to enforce the ethics code of conduct.

References:

- ACB (2008). *National Anti-Corruption Strategy*, Malawi: Anti-Corruption Bureau.
- Bottoman L. (2009). *The Daily Times News Paper*, Malawi.
- Buys F. (2002). *Research Methodology and Techniques QRT 303*, Port Elizabeth: Nelson Mandela Metropolitan University.
- Chilipunde R. L. (2010). "Constraints and challenges by small, medium and micro enterprise contractors in Malawi", published Master of Science degree: project management, Port Elizabeth: Nelson Mandela Metropolitan University.
- Chiocha C. I. M. (2009). "Corruption and its effects on the development of the construction industry in Malawi", published Master of Science degree thesis, Port Elizabeth: Nelson Mandela Metropolitan University.
- Fewings P. (2009). *Ethics for the Built Environment*, New York. U.S.A.
- Gould F. E. and Joyce N. E. (2003). *Construction Project Management* (2nd ed.), Prentice Hall, Australia.
- Guash J. (2005). *Granting and Renegotiating Infrastructure Concessions: Doing it Right*. Washington DC: The World Bank.
- Gulati M. and Rao M. (2006). *Transparency International Global Corruption Report 2005: Checking Corruption in the Electricity Sector*. Mimeo: World Bank.
- Kandiero C. (2011). *The Daily Times News Paper*, Malawi.
- Kenny C. (2007). *Is It Plausible to Publish Government Contracts and Licenses, Is There a Role for the World Bank*. Washington DC: World Bank.
- Mmana D. (2009). *Weekend Nation News Paper*, Malawi.
- Moon C. (2002). *Business Ethics — Facing up to the Issues* (2nd ed.), London: Profile books Ltd.
- NCIC Magazine (2009). "Code of ethics for consultants in the construction industry", Malawi: National Construction Industry Council.

- Ng'ong'ola D. H., Mangisoni J., Wiyo K. and Mzandu D. (2001). "Beneficiary assessment: MASAF projects", accessed 23 July 2009, available online at: <http://www.masaf.org/studies/studiesreports.htm>.
- Nthala E. (2010). *The Nation News Paper*, Malawi.
- Ntonya G. (2010). *Weekend Nation News Paper*, Malawi.
- ODPP (2004). "Ethical standards for procurement personnel", Malawi: Office of the Director of Public Procurement.
- Oxford University Press (2000). *Concise Oxford Dictionary* (10th ed.), Oxford: UK.
- Phiri D. D. (2011). *The Nation News Paper*, Malawi.
- Phiri M. A. and Smallwood J. J. (2010). "An evaluation of the impact of corruption, economic status and political influence on the Malawian construction industry", published Master of Science degree thesis, Port Elizabeth: Nelson Mandela Metropolitan University.
- Poon J. (2003). *Professional Ethics for Surveyors and Construction Project Performance*, University of Wolverhampton, U.S.A.
- Thom M. (2010). *The Daily Times News Paper*, Malawi.
- Van Der Walt B. J., Cornelis W. A. S. and Samuel V. (1998). *Corruption*, Institute for Reformatory Studies, Potchefstroomse Universiteit.
- Vee C. and Skitmore M. (2003). "Corruption survey in the construction industry", *Journal of Engineering, Construction and Architectural Management*, Vol. 14, No. 3, pp. 63-77.