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The goal of the *ASEAN Journal of Management & Innovation* (AJMI) is to publish insightful, original and timely research that describes or potentially impacts management and/or innovation that has the potential to be applied in the ASEAN context. Topics that are either distinctly ASEAN-related, or are regional or international in scope are encouraged. AJMI is multidisciplinary in scope and interdisciplinary in research methodology and content. AJMI accepts papers that initiate or redirect a line of inquiry as well as papers that provide new insights into previous work.

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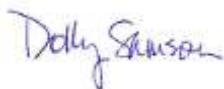
Sanita Auttopakorn

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Editorial

Thank you for taking time to read the second issue of the *ASEAN Journal of Management & Innovation*. As we head into 2015, the year marking the launch of the ASEAN Community, this issue presents topics relevant to ASEAN and beyond. The variety and richness of the papers presented herein are thanks to the tireless efforts of our guest editor, Dr. José María López Pina, Head of Department, Economics and Finance at Universidad Europea in Madrid, Spain. Through his editorial leadership, this issue of AJMI has garnered contributions from Chile, Spain, United States and Thailand on topics of management and innovation in retail, technology, competitive advantage, economics and corporate social responsibility. Some papers focus on ASEAN subjects, yet all provide insights for researchers, students, and professionals everywhere. I hope that this issue gives you new insights and perspectives that are useful to you in your endeavors.

Please consider submitting your own research to Volume 2, Number 1 of AJMI, to be published in May, 2015. You can find details at our website, ajmi.stamford.edu. Whether its submissions or feedback, we'd love to hear from you.



Dolly Samson

Editor in Chief

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Message from the Guest Editor

It is my pleasure to introduce this special issue of the *ASEAN Journal of Management & Innovation*, hoping the reader finds it thought-provoking.

When I was asked to be the guest editor of this issue of AJMI, one of the challenges we faced was that the journal had a very international, global character, which is a required condition nowadays in the business and management world.

We have succeeded to carry on the global nature of AJMI in this issue. The international approach is not just reflected by the variety of authors and research centers involved, but also by the topics, which address issues relevant for any environment.

Another point to emphasize in this number is the wide diversity of topics covered. Topics such as business ethics, corporate social responsibility, technological innovation, the relationship between infrastructure and business or the incentives to the foreign direct investment are some of relevant topics analyzed in this issue.

I hope that the journal is useful for researchers, and these articles will serve as a reference for further research.



José María López Pina

Guest Editor

ASEAN Journal of Management & Innovation,

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Business Ethics: Consumers and the Supermarket Retail Industry in Chile

Raul Alee
IEDE Chile

Abstract

This research focuses on the role of consumers in corporate ethical behavior by investigating their predisposition to pay a premium price or to increase the amount purchased from companies that act ethically. This study uses a quantitative methodology based on a questionnaire on the supermarket retail industry, which was administered to consumers in Santiago, Chile. The results do not refute the hypothesis that Chilean consumers have low awareness of unethical business behavior and that they are not willing to pay a premium price or increase the volume purchased to reward ethical behavior.

Keywords: Consumer behavior, Ethics, Retail, Social responsibility, Chile

1. Introduction

Howard Bowen (1953), in his book *Social Responsibilities of the Businessman*, defines corporate social responsibility (CSR) as "the obligation of businessmen to pursue those policies, to make those decisions, or to follow those lines of action which are desirable in terms of the objectives and values of our society" (p. 6). This definition by Bowen, considered the father of modern literature on CSR (Carroll, 1999, p. 270), contrasts with the argument of Milton Friedman (1970), the Nobel Laureate in Economics, who referred to the social responsibility of business as a "fundamentally subversive doctrine" because this notion does not coincide with the real responsibility of business, which is "to use its resources and engage in activities designed to increase its profits so long as it stays within the rules of the game, which is to say, engages in open and free competition without deception or fraud" (p. 124).

As this example indicates, there are many conflicting notions about the definition and validity of the concept of corporate social responsibility. These opposing viewpoints about the role of businesses in society motivated the Marketing Science Institute in the early 1990s to recommend an increase in research on the value given by companies to consumers' perceptions of their good intentions and actions (ethical behavior). Although research on CSR has increased substantially (Flores et al, 2007), there remains a need for quantitative academic evidence specifically on consumers' awareness and their willingness to punish or reward companies' ethical behavior, as noted by Brown and Dancin (1997) and reinforced by Ross (1997), Mohr, Webb and Harris (2001), Maignan and Ferrel (2004), Auger, Devinney and Louviere (2004) and Bigné, Chumpitaz, Andreu and Swan (2005).

In this investigative line, the research of Kanz and Fernandez-Merino-Castello (2005b) and De Pelsmacker, Driesen and Rayp (2005) has concluded that a majority of Spanish and Belgian consumers are willing to reward companies that exhibit demonstrable "ethical" behavior, paying premium prices of more than 5% higher for their products. However, these results conflict with those of Ross, Patterson and Stutts (1992), Cunningham and Cushing (1993), Ahluwalia, Burnkrant and Unnava (2000), Mohr et al. (2001), Elliot and Freeman (2004), Auger et al. (2004) and Bigné et al. (2005).

The present study builds on this research on consumers' perceptions and attitudes toward socially responsible companies (namely, consumer decision process theory) by providing empirical evidence to contrast the economics generated by consumers' responses to

socially responsible or irresponsible corporate conduct. More information on how consumers weigh their responses to corporations' social responsibility is necessary to build better business strategies. This study contributes quantitative evidence to this discussion based on the premise that being ethical is good for business because, as Mayer (2001) states, such sensitive conduct "will over time be subordinated to the search of profits." This research does not provide evidence on customers' buying decisions, an issue beyond the scope of this study. Rather, the study provides evidence of consumers' perceptions and the formation of their attitudes and intentions.

The problem that this study investigates is fundamental to the comprehension of the economic and strategic advantages to companies of paying attention to their decision-making process to ensure that it includes ethical aspects, in consideration of the active role consumers play in rewarding or punishing companies at the moment of purchase. More specifically, the purpose of this research is to study the awareness and willingness of consumers to reward the ethical behavior of companies through their purchase preference or through the payment of a premium price for products or services. This study aims to investigate the role of consumers in CSR strategies, rather than the role of managers (for example, how a company's decisions affect consumer choices) or other stakeholders such as employees or investors (Du, Bhattacharya, and Sen, 2010). In relation to this role, the concept of a "socially responsible consumer" has been defined as "as a person basing his or her acquisition, usage, and disposition of products on a desire to minimize or eliminate any harmful effects and maximize the long-run beneficial impact on society" (Mohr et al., 2001).

This behavior can be observed, to some extent, in North America, where about two-thirds of consumers indicated their willingness to switch from one store or product to other, with equal quality and price, that is related to a social cause (Ellen et al., 2000). However, there are doubts whether the local Chilean consumers of Chilean companies value ethical management behavior enough for corporate leaders to consider a return to surveillance of the ethical administration of their businesses. It is not obvious that consumers in different countries are willing to reward ethical corporate behavior in the same manner. Moreover, the product or service category may have different roles in consumers' attitudes toward CSR. Therefore, this study will provide more investigative evidence on this matter to contribute to the scientific community.

2. Literature Review

Since the early twentieth century, there has been increasing attention to concerns about the responsibility of businesses toward society, beyond their ultimate goal of maximizing profits. It is appropriate to refer to this responsibility as "an obligation of moral origin, derived from the freedom of choice, by which the subject responds by their past, present and future actions. Being responsible is ultimately a state of mind" (Lizcano and Nieto, 2006).

Taking into account that a company can be considered an extension of the people who form it and the values governing their actions, Ogliastri (2010) suggests that leaders should inspire with their actions the values they want to see reflected in the company. Bowen (1953) defines CSR as "...the obligation of the businessman of committing to pursue policies, to make decisions, or to keep lines of action that are desirable in terms the goals and values of our society." Many institutions related to this subject have their own definitions of CSR,¹ but they share the understanding that CSR is more than compliance with the law; it implies ethical behavior that considers the economic, social and environmental interests of different stakeholders, such as employees, the community, suppliers and customers.

¹ See "Green Book of The European Union", "Foretica", "Cemefi", "Forum Empresa", "Accion RSE", "Instituto Ethos", "AEDCr", "BSR".

From a research perspective, Jara, Torres and Moneva (2006) describe CSR as an evolutionary process with four categories. They call the highest stage the modern approach, which is based on the full acceptance of social responsibility to different stakeholders. Carroll (1991) presents a similar argument, affirming that effective CSR should be structured like a pyramid, with four layers of business responsibilities. At the base of the pyramid are economic responsibilities: to produce goods and services that consumers need and want and to make a maximum profit in the process. The second layer includes legal responsibilities: to pursue the economic mission within the legal framework or "codified ethics." The third layer is ethical responsibility: to establish rules that reflect concern for the moral rights of stakeholders. Finally, at the top of the pyramid are the philanthropic responsibilities: to be good corporate citizens and engage in activities or programs that promote human welfare and goodwill. Any missing layer would make a CSR program collapse. This study is focused in the second and third layers of the pyramid, ethical considerations and their relationship with CSR.

It is important to note that both practitioners and researchers seem to agree that CSR and ethics are inseparable. Gazelle (2000) states, "The movement towards developing a global ethic originated some decades ago, after the Second World War, largely due to an already widespread concern for human rights." In particular, regarding responsible and ethical behavior toward employees, Reichheld and Teal (2001) note that companies must ensure their long-term profitability, not only by attracting new customers but also by retaining good customers. To this end, these authors state, the most important factor is employees who are motivated and satisfied.

Moss (2002) argues that with the globalization of markets, multinationals have learned that making money and being ethical go together. He quotes David Eichberg, senior marketing manager of 'Business for Social Responsibility' of San Francisco, who refers to the results of a 1999 study of De Paul University that concluded, "Firms that made an explicit commitment to follow a code of ethics provided twice the value to shareholders in relation to companies that did not." Gazelle (2000) notes that in the 1990s, corporate leaders emerged who thought that "ethical behavior", even on a voluntary basis, could be profitable and could increase market shares for companies that exhibited in this behavior (rather than unethical behavior) toward their various stakeholders. "The Caux Round Table", which was formed in 1986 by multinational companies, produced a draft called "The Caux Principles," which asserts that the accountability of business embraces all of its stakeholders (i.e., local, national, regional and global communities, competitors, consumers, customers, employees, suppliers and, of course, shareholders).

However, some cases seem to contradict the logic that acting ethically generates more stable companies in the long term. Mayer (2001) argued that even the sense of social responsibility is affected over time by the pursuit of profit, and ethical standards cannot come from "the market," which does not incorporate non-economic aspects into its assessment of companies. This view contrasts with Moss' (2002) observation that multinational companies that do business around the world realize the need to consider the ethical management of their businesses in their country of origin and anywhere they do business or maintain offices. Little is said in the literature about companies that are isolated from foreign influences in the matter of ethics or companies that are in industries of non-tradable goods. For these reasons, we have chosen to focus on the retailing industry, specifically supermarkets,² in Chile.

² Throughout this paper, I use the term supermarket to mean a brand-name chain with different store formats. This is consistent with the wording used by consumers in Chile, as established in focus groups during the exploratory phase of this research. Nevertheless, it is important to mention that in Chile, the supermarket is a highly concentrated industry, with 3 main chains contributing more than 85% of the market share (AC Nielsen, September 2007).

The central concern of private institutional management is to achieve the short-term goals of shareholders (Handelman and Arnold, 1999). This concern has led managers to overlook ethical issues related to the interests of other stakeholders, such as customers, employees, suppliers and society (Fernandez-Kranz and Merino-Castelló 2005a), as it is exemplified in the case of Chiquita in Colombia where managers decided to make payments to paramilitary groups to secure the safety (Bunse and Colburn, 2009). Moreover, some authors argue that companies have not yet considered social marketing as a strategic matter, seeing it instead as a search for short-term social legitimacy (Robin and Reidenbach, 1987).

Some previous studies have cited boycotts of companies with irresponsible behavior as one of the main potentially harmful reactions by consumers. However, other studies have found no such evidence (Garrett 1987, Rubel 1995, Friedman 2001). Shrum et al. (1995) found that even among green consumers, who are likely to be opinion leaders in environmental issues, only those who were active information seekers were willing to switch brands from companies with irresponsible business practices.

Shapiro (1983) said that a favorable reputation or image allows a company to charge a premium price for the sale of their products or services because consumers are willing to pay. However, research by the Forética Foundation (2004) revealed that 54% of Spanish consumers declared that they had never heard the term CSR, and most had not even noticed changes in the social and environmental policies adopted by companies. Bigné et al. (2005) found no significant differences in the buying behavior of Argentinean, Chilean, Spanish and Portuguese consumers based on their neutrality in assessing the importance of CSR information when choosing a product.

Smith (1995) suggests that there are some conditions, such as a lack of consumer information, that prevent the invisible hand of the market from providing rewards or punishments for socially responsible or irresponsible companies. Mohr et al. (2001) notes that the major inhibitor of consumer response to socially responsible corporate actions is the consumer's lack of awareness or knowledge. This comment is derived from Smith (1995), Mohr et al. (2001) and Du et al. (2010), who suggest that the first step in studying consumers' awareness of ethical corporate behavior is to establish whether consumers are aware of such issues. Therefore, we examine how aware Chilean consumers are about ethical faults, particularly in the retail industry.

Elliot and Freeman (2004) argue that consumers are unaware of the ethical characteristics of most of the products they consume. Ahluwalia et al. (2000) add that consumers who are loyal to a brand minimize information about unethical behavior by the producers of that brand. Auger et al. (2004) find very poor recall among consumers of the basic ethical attributes of products they purchase frequently. In general, these authors say, between 80% and 95% of respondents stated that they did not know whether their most recently purchased brand of athletic shoes or soap had specific ethical attributes.

It is important to note that testing awareness is only the first stage in assessing the potential reactions of consumers to unethical conduct in corporate management. With the low level of awareness found by Auger et al. (2004), it is not surprising to find low reward and punishment intentions in consumers' attitudes. Although this study attempts to provide investigative evidence on this subject, it would be interesting for future research to provide additional evidence on this relationship and its variation in different categories of products and services or among different types or nationalities of consumers.

It is necessary to quantify the instances and types of noncompliance with ethical behavior observed in each type of product or service tested, as well the information available to consumers about these faults. In the case of the supermarket sector in Chile, there was at least one incident per month in the year prior to the fieldwork for this study, and all of the events were widely covered by the press. They included penalties assessed for poor sanitary

conditions for perishable goods, the distribution of toys made with toxic substances, abusive payment practices for suppliers, illegal treatment of workers, excessive and illegal hidden charges on store credit cards, differences between the prices publicized and the prices charged, discrimination in personnel selection, and misleading advertising. The retail supermarket sector in Chile is continually in the news for these types of issues, but consumers' purchase behavior seems to be unaffected. Du et al. (2010) explain that even though "much of the academic research to date ... has largely presumed or mandated (e.g. in laboratory studies) CSR awareness on the part of the relevant test populations..., recent studies with real stakeholders revealed that awareness of a company's CSR activities is typically low among its stakeholders" and that this may explain the low stakeholders' reaction to these strategic initiatives. From this information, we derive the first research hypothesis:

H1. *There is no awareness among the majority of consumers in Chile about the unethical behaviors of supermarkets.*

Even if consumers are aware of a company's CSR behavior, the question of whether consumers react to such information remains. In reviewing the literature, empirical evidence on consumers' responses to companies' socially responsible or irresponsible behavior has been contradictory and inconclusive, as we shall see below.

The "ethical consumers" are those who believe that they can express their influence on society through their purchasing and consumption behavior, by preferring certain brands or boycotting others. De Pelsmacker et al. (2005) affirmed that many sources indicate a high demand for ethical products based on the consumers' stated predisposition to prefer them or to pay premium prices.

Social legitimacy "is the consumer perception of how well a company works and respects norms" (Handelman and Arnold 1999). Well-managed legitimacy, the authors note, shields a company from boycotts by non-governmental consumer organizations. Creyer and Ross (1997) complement this line of thought by pointing out that irresponsible social behavior may simply be bad business. For example, there are documented cases of campaigns initiated by consumer boycotts as a form of protest against companies whose behavior is perceived by consumers as irresponsible or unethical. De Pelsmacker et al. (2005) found that to predict buying behavior of ethical products, studies should consider previously revealed aspects of consumer attitudes, such as their willingness to pay a premium price. Boulstridge and Carrigan (2000) support this argument, concluding that CSR is far from the main criterion for consumer purchases.

This is why companies in search of social legitimacy spend enormous amounts of money on philanthropy, sponsorships and marketing associated with social causes, although the results of such actions are difficult to quantify or even determine. Elliot and Freeman (2004) point out that these campaigns are usually led by non-profit organizations established in developed countries. In some cases (for example, Human Rights Watch), they achieve their goal not by generating consumer action but by generating debate and political pressure on authorities to legislate the subject. The Marketing Science Institute has called for investigations into the values necessary for a company to be seen as having "good" moral sense, intentions and actions (Brown and Dacin 1997).

In scientific research, however, there is still room to explore on this subject. Maignan and Ferrell (2004) emphasize that it is important to study consumer responses to CSR because these responses affect business decisions. More research is required in this area to understand 'responsible consumers.' Mohr et al. (2001) indicate that while many academics and business leaders discuss CSR, there has been little examination into what consumers think and expect. Auger et al. (2004) agree that there is surprisingly little substantive academic research on the willingness of consumers to punish unethical behaviors or to require responsibility from companies. Creyer and Ross (1997) state that there is a sufficient number of studies on ethics

and CSR that focus on marketing professionals, but very few studies focus on consumers and their perceptions, attitudes, evaluation processes, intentions and purchasing behavior.

Suchman (1995) identifies two types of legitimacy that companies can seek. Pragmatic legitimacy aims to obtain direct benefits from conduct related to the delivery of concrete benefits to consumers to trigger their preferences (such as price and quality). Moral or social legitimacy refers to actions consistent with the welfare of the community and society that ensure long-term survival and reduce the company's vulnerability to changes in consumer behavior in the short term. Fullerton et al. (1996) indicate that consumers, in general, are intolerant of ethical abuses by retailers, such as misleading customers. Mohr et al.'s (2001) review of research notes that this "moral legitimacy" might even offset or overshadow the traditional purchase criteria at retail stores (pragmatic legitimacy). In the context of retail stores, Handelman and Arnold (1999) find a significant impact of institutional actions that generate legitimacy on the level of consumer support. Like Mohr et al. (2001), these authors conclude that actions directly related to these retail service attributes become irrelevant if negative institutional practices are evident to consumers. As Cunningham and Cushing (1993) note, companies that include information on their social activism in their advertising claims did not significantly increase consumers' recall. Berger et al. (1999) complements this argument by stating that advertising increases purchase intentions.

Given the possible interaction between pragmatic legitimacy and moral legitimacy, this study evaluates whether a change in moral legitimacy is accompanied by a change in purchase intention, *ceteris paribus*, particularly keeping constant the components of pragmatic legitimacy. I use consumers' current purchase preferences as a baseline to determine whether their purchase intentions change when aspects of moral legitimacy change.

A MORI survey (2000) of CSR indicates that 70% of European consumers say that, when buying a product, they consider a company's commitment to socially responsible acts. Fernández-Kranz and Merino-Castello (2005a and b) find that 65% of consumers declare the willingness to pay between 5% and 15% more for products manufactured in a socially responsible manner. Specifically, 51% of consumers reported willingness to pay a premium of 5%, 7% would pay a premium of 10% and 7% stated a willingness to pay a premium of 15%. These results are similar to those obtained by CECU (2004) and Forética Foundation (2004) for Spanish consumers. Pelsmacker et al. (2005) found consumers' willingness to pay a premium for an "ethical" product to be 10%, on average, in the Belgian population. In a study conducted by the MU Center for Ethical Concerns (1999), 75% of consumers said they would avoid buying from a retail store if they knew that the goods were produced under questionable conditions. Moreover, these consumers would pay 5% more for the same product made under better conditions.

From these data, it can be established that more than half of consumers show a willingness to act favorably towards companies with ethical behavior and even to reward those companies by paying a premium of at least 5%. These figures serve as a reference point in this investigation to test the situation in the Chilean market and to establish our second hypothesis:

H2. *Consumers are unwilling to pay a significant premium price to reward their main supermarket if it guarantees ethical management.*

Consumers visit supermarkets frequently (80% claimed to go at least once a week), but they buy from more than one supermarket, concentrating approximately 60% of their budget in their preferred store. It is therefore conceivable that a consumer could be unwilling to pay a premium price for an "ethical guarantee," but willing to change the proportion of his budget spent in the supermarket that provides this guarantee. This situation leads to our third hypothesis:

H3. Consumers are unwilling to significantly increase the volume of purchases to reward their main supermarket if it guarantees ethical management.

3. Methodology

The purpose of this research is to study consumers' awareness and willingness to reward the ethical behavior of companies. In particular, this study investigates the willingness of consumers to pay a premium price or reward through their preference to purchase from companies in the service sector in Chile, specifically in the supermarket industry

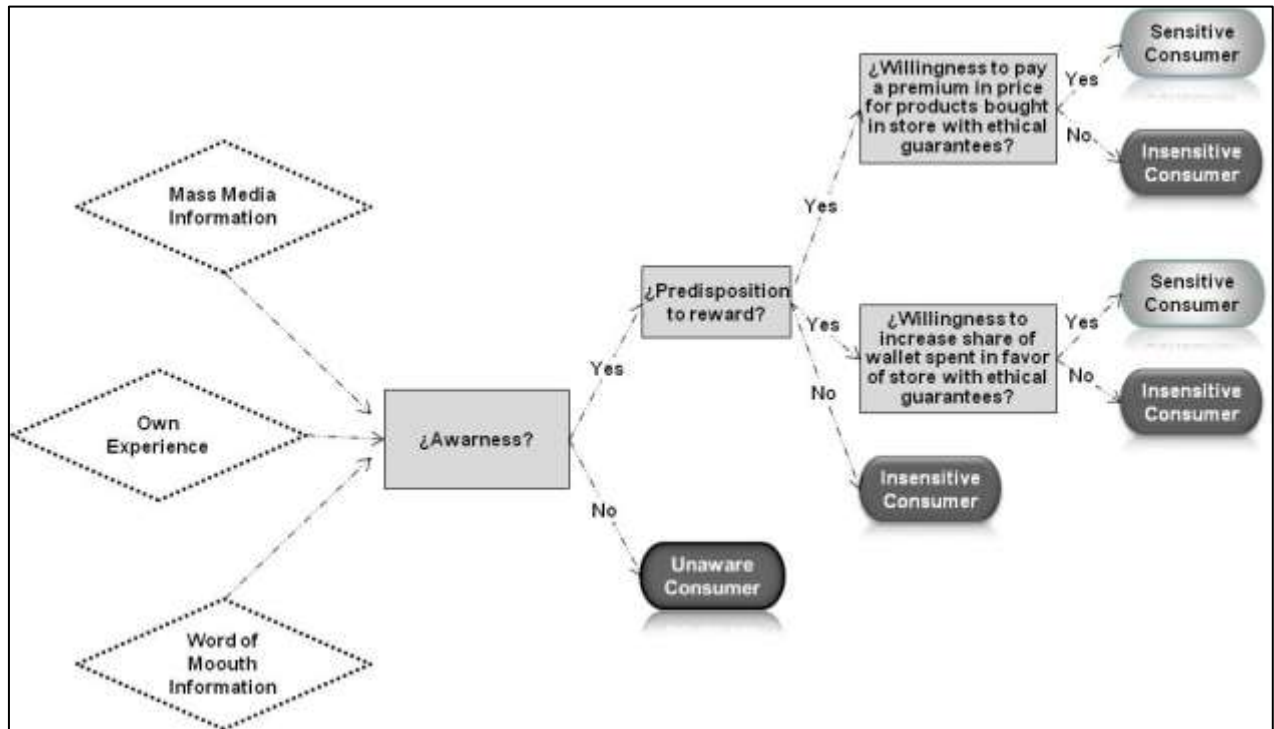


Figure1. Conceptual Model of Consumer Sensitivity to Corporate Ethical Behavior

(Based on Creyer y Ross 1997, Mohr et al. 2001, De Pelsmacker et al. 2005, Fernández-Kranz y Merino-Castello 2005, Elliot y Freeman 2004, Auger et al. 2004, Bigné et al. 2005)

The general hypothesis is that in Chile's supermarket industry, customers assign little value to the ethical behavior of companies. The contrasting values to be considered, as noted above and derived from the research reviewed, are whether the majority of consumers are interested in these subjects, as in the study by De Pelsmacker et al. (2005), and whether they would be willing to reward these actions with significantly higher prices or by increasing purchase volume (at least a 5% increase, according to values obtained in other studies in developed countries, as apparent from the previous review of the literature).

To obtain the primary data, this study conducted a face-to-face survey of supermarket consumers at their homes. The causal-descriptive study design makes inferences about consumers' "awareness", perceptions and intentions in purchase circumstances and their predisposition to act in different ways toward ethical issues concerning supermarkets.

The measurement instrument was a structured questionnaire derived directly from the previously stated hypothesis. It used closed questions with ordinal rating scales and bipolar or preset alternatives, particularly in the percentage ranges for price premiums and volume increases, following the structure derived from the previously reviewed studies. To reduce non sampling errors, the questions were constructed following two focus groups with the

target population that examined the wording and understanding of the issues to be tested. Finally, the questionnaire was pre-tested and refined to assure the validity, accuracy and interpretability of the survey results.

Given the type of the retailer considered, the study focused on frequent supermarket customers of medium-high and high socioeconomic class in Santiago, Chile, using a probability multistage sampling methodology. The subjects of the sample included frequent customers of supermarkets, specifically women of medium-high and high socioeconomic class who participated directly and frequently in the purchase of goods for the home. The *a priori* size of the sample was 384 people to allow 5% error in estimates, assuming maximum variance in the sample of proportions and a confidence level of 95%, following the recommendations given by Hair et al. (2004).

In sampling, the following procedure was used. First, geographical sectors with high concentrations of medium-high and high socioeconomic classes in Santiago³ were selected. Second, 422 random numbers were generated between 1 and 136,056 (representing the total number of homes in the previously selected geographical sectors) to determine the number of surveys to be conducted at each sector (this included an oversample of 10% to provide a count of internal inconsistencies in questionnaires that would be declared invalid). Third, in each sector, the blocks for sampling were randomly selected from a plotting paper of the map.

Ten university-student interviewers were trained in the questionnaire application and sampling procedure and were assigned to an evenly distributed number of blocks. In the field, interviewers began at a predefined corner of the block marked on their maps. From this corner, the interviewer moved clockwise until the first interview was conducted. After a successful interview, the interviewer skipped three houses and tried again, until the next interview was completed. Finally, 10% of the questionnaires were rechecked in the field by a supervisor, and 100% of the questionnaires were screened for internal consistency. This study produced 406 valid interviews (4.87% sampling error). The data were processed with SPSS software and analyzed using statistical techniques.

4. Results and Discussion

The average age of the sampled subjects was 45 years (SD=13.1). Almost all respondents had at least a bachelor's degree (12 years of formal education), and 53% had completed university studies (18 years of formal education). 45% of the respondents had a full-time job, and 40% were housewives. The family size mode was four members, and the average family size was 4.3 (SD=1.8).

The questionnaire was conducted among women living in a geographical area of predominantly medium-high and high socioeconomic class. Interestingly, given the randomness of the procedure chosen to select respondents, 63% of the sample was of medium-high socioeconomic class, and 37% was of high socioeconomic class. These findings are consistent with the values observed in Santiago,⁴ which ensures the reliability of the methodology used.

Based on the information collected and the statistical analyses performed, it can be established that the preferred main supermarket was the one in which consumers shopped most frequently and where they spent the largest proportion of their budget. Analysis of the characteristics of consumers' purchases in their main supermarkets demonstrates that there is a significant concentration of expenditure and frequency of shopping visits to consumers'

³ ICCOM, Empresa de investigación de mercado. "Composición por nivel socioeconómico de los hogares en Santiago". 2005, Retrieved from

http://www.iccom.cl/html/info_estadistica/documentos/datos/1_EXCEL/2005/Hogares_Urbanos_ICCOM_2005.xls.

⁴ http://www.iccom.cl/html/info_estadistica/f_inf_estadistica.html.

"main" supermarket, which indicates significant loyalty of consumers to these establishments. Respondents state that the most important attributes considered when choosing their supermarket are price, quality and the variety of products; this corresponds to pragmatic legitimacy, according to Suchman's (1995) definition.

To assess the degree to which consumers are aware of ethical issues, they were asked to rank four types of misconduct that may affect their main supermarket: misconduct toward suppliers, workers, companies and customers (Fernandez-Kranz and Merino-Castelló, 2005a). The question provided examples of basic and public ethical misconduct (violation of law) to align understanding of the issues among respondents. The main type of ethical misconduct that consumers resent affects the customers themselves (which is an insinuation of individualism or selfishness). The least important are those violations that affect the suppliers of the supermarket, the type of misconduct that received more media coverage near the time of the study.

Given a hypothetical situation in which the consumer's main supermarket may commit any type of misconduct in the future, respondents were asked whether they would reduce their frequency of purchase at the supermarket or whether they believed that it was the responsibility of the authorities to punish this conduct (closed dichotomic question). In this case, the opinions were divided, with roughly 50% of responses for each option, regardless (statistically) of the declared main supermarket.

To change from a hypothetical situation to a situation based on experience, the interviewees were asked if they knew, had heard or had read of any unethical behavior by one or more supermarkets against their suppliers, employees, society or customers. In all cases, the level of declared ignorance was significantly higher than 50% (binomial test, p value < 0,05 in testing the hypothesis of equality), ranging from 66% in cases associated with customers to 89% in cases related to society.

Table 1: Declared awareness of consumers of any unethical behavior by one or more supermarkets against different stakeholders.

		Binomial Test				
		Category	N	Observed Prop.	Test Prop.	Asymp. Sig. (2-tailed)
Do you know or have you heard or read of any unethical behavior by one or more supermarkets against their suppliers?	Group 1	Do not know / Do not remember	308	0.76	0.50	0.000
	Group 2	Yes	98	0.24		
	Total		406	1.00		
Do you know or have you heard or read of any unethical behavior by one or more supermarkets against their employees?	Group 1	Do not know / Do not remember	309	0.76	0.50	0.000
	Group 2	Yes	97	0.24		
	Total		406	1.00		
Do you know or have you heard or read of any unethical behavior by one or more supermarkets against society in general?	Group 1	Do not know / Do not remember	360	0.89	0.50	0.000
	Group 2	Yes	46	0.11		
	Total		406	1.00		
Do you know or have you heard or read of any unethical behavior by one or more supermarkets against their customers?	Group 1	Do not know / Do not remember	269	0.66	0.50	0.000
	Group 2	Yes	137	0.34		
	Total		406	1.00		

a. Based on Z Approximation.

Therefore, H1 cannot be rejected. Only consumers who reported knowledge of a supermarket’s ethical lapses were asked if they had stopped buying or had decided to stop buying from this supermarket. 66% answered “no.”

The interview then assessed the willingness to pay a premium in price for a guarantee from the main supermarket to behave ethically. The purpose of these questions was to examine more closely the actual purchase situation of consumers and to assess the significance of their attitude toward ethical issues. In all cases, most customers (more than 50%) would not be willing to pay more (binomial test, p value < 0,05 in testing the hypothesis of equality). Regarding an ethical guarantee of fair treatment to suppliers, 82% of consumers said they would be unwilling to reward the company by paying more for their purchases. For issues related to workers, 72% said they would not be willing to pay more, and on issues related to society, 75% of respondents answered similarly. Finally, for issues related to customers, 62% declared that they would not be willing to pay more

Table 2: Declared willingness of consumers to pay a premium in price if their main supermarket provides a guarantee of ethical behavior.

Binomial Test						
		Category	N	Observed Prop.	Test Prop.	Asymp. Sig. (2-tailed)
Would you be willing to pay higher prices for products sold by your main supermarket if it provides a guarantee that it behaves ethically with its suppliers?	Group 1	NO, I would not pay more	331	0.82	0.50	0.000
	Group 2	Yes, I would be willing to pay more	75	0.18		
	Total		406	1.00		
Would you be willing to pay higher prices for products sold by your main supermarket if it provides a guarantee that it behaves ethically with its workers?	Group 1	NO, I would not pay more	293	0.72	0.50	0.000
	Group 2	Yes, I would be willing to pay more	112	0.28		
	Total		405	1.00		
Would you be willing to pay higher prices for products sold by your main supermarket if it provides a guarantee that it behaves ethically with society in general?	Group 1	NO, I would not pay more	305	0.75	0.50	0.000
	Group 2	Yes, I would be willing to pay more	100	0.25		
	Total		405	1.00		
Would you be willing to pay higher prices for products sold by your main supermarket if it provides a guarantee that it behaves ethically with its customers?	Group 1	NO, I would not pay more	251	0.62	0.50	0.000
	Group 2	Yes, I would be willing to pay more	153	0.38		
	Total		404	1.00		

a. Based on Z Approximation.

When asked how much more they would be willing to pay if their main supermarket (at which they spend the most money) guaranteed ethical behavior in its relationship with suppliers, 94% answered that they would not pay a premium of 5% or more. In the case of workers, companies and customers, this percentage was 91%, 91% and 87%, respectively. If we assume an equivalence of the interval scale to a metric and take the maximum points of the ranges as representing the same (conservative scenario), we find that the average price premium, applying Student's t -test with 95% confidence, is 1.0% for a guarantee of an ethical relationship with suppliers and 1.5%, 1.4% and 2.4% for such a safeguard for employees, society and customers, respectively. Therefore, we cannot reject H2: most customers are unwilling to pay a premium in price for ethical guarantees by their main supermarket. Those that showed a positive willingness would pay a premium price lower than 5% for assurance of ethical behavior.

We also assessed the consumers' disposition to reward companies by the volume purchased, considering that some consumers might not be willing to pay more but would show greater loyalty to their primary supermarket if it behaved ethically. The respondents were asked if they would be willing to buy more from their main supermarket if it guaranteed ethical behavior with its suppliers, employees, society, and clients. In all cases, most customers would be unwilling to buy more because of such a guarantee. Specifically, more than 50% of the respondents indicated no willingness to purchase more (binomial test, p value $< 0,05$ in testing the hypothesis of equality) if the lack of ethics affected suppliers (69%), workers (64%), society (66%) or customers (56%).

Table 3: Declared willingness of consumers to buy more if their main supermarket provides a guarantee of ethical behavior.

		Binomial Test				
		Category	N	Observed Prop.	Test Prop.	Asymp. Sig. (2-tailed)
Would you be willing to buy more in your main supermarket if it provides a guarantee that it behaves ethically with its suppliers?	Group 1	NO, I would not buy more	280	0.69	0.50	0.000
	Group 2	Yes, I would be willing to buy more	125	0.31		
	Total		405	1.00		
Would you be willing to buy more in your main supermarket if it provides a guarantee that it behaves ethically with its workers?	Group 1	NO, I would not buy more	258	0.64	0.50	0.000
	Group 2	Yes, I would be willing to buy more	147	0.36		
	Total		405	1.00		
Would you be willing to buy more in your main supermarket if it provides a guarantee that it behaves ethically with society in general?	Group 1	NO, I would not buy more	268	0.66	0.50	0.000
	Group 2	Yes, I would be willing to buy more	137	0.34		
	Total		405	1.00		
Would you be willing to buy more in your main supermarket if it provides a guarantee that it behaves ethically with its customers?	Group 1	NO, I would not buy more	225	0.56	0.50	0.029
	Group 2	Yes, I would be willing to buy more	180	0.44		
	Total		405	1.00		

a. Based on Z Approximation.

In particular, when asked how much more they would be willing to buy or how much they would increase the frequency of purchases, when the ethical behavior was guaranteed toward the relationship with suppliers, 88% were not willing to buy 5% or more. In the case of workers, companies and customers, this percentage was 86%, 86% and 78%, respectively.

These rates of rejection, although high, are lower than those obtained previously in the situation with rewards through premium prices. Again, if we assume an equivalence of the interval scale to the metric, taking the maximum points of the ranges as representing the same (conservative scenario), applying Student's t -test with 95% confidence, we have an average increase in the amount or frequency of purchase of 2.0% for ethical guarantees to suppliers and 2.4%, 2.2% and 3.5% for workers, companies and customers, respectively. Therefore, we cannot reject hypothesis 3: in general, supermarket customers increase their volume or frequency to a maximum of 2.5%, assuming a guarantee of ethical conduct by supermarkets toward their suppliers, employees and society. This reward reaches 3.5% for ethical lapses that harm customers.

5. Conclusions, Limitations and Future Research

We investigated the sensitivity of consumers to improper business conduct, particularly in the supermarket industry in Chile.

In this research, we proposed the following hypothesis: "In the Chilean supermarket industry, customers assign little value to ethical business behavior." From the results of the investigation, we concluded that this hypothesis could not be rejected. The results indicate a very low level of consumer awareness of unethical actions in the supermarket industry and a low propensity to pay a premium in price or to spend a larger proportion of their purchases in a specific supermarket to reward ethical behavior in their management.

Specifically, this research shows that the majority of consumers have little awareness of the unethical actions of companies in this sector. Even if consumers are guaranteed ethical management conduct by their main supermarket, they are not willing to pay significantly more for their purchases (at least 5% more). Finally, even if consumers are guaranteed ethical management conduct by their supermarket, they are not willing to buy significantly more products or purchase more frequently (at least 5% more).

Thus, we can argue that in this specific industry, we do not find positive economic incentives in the form of consumers' willingness to reward a supermarket for developing a competitive strategy based on ethical behavior, at least not in terms of the theory of consumer purchase behavior. In the terms used in some of the literature, the ethics of business, in some cases, may not be paid by the market.

This research and its conclusions should be understood in terms of its limitations, which generate challenges for further research on the subject.

One important limitation is that the study examines attitudes, perceptions, and predispositions, not real purchase behavior. It is beyond the scope of this paper to indicate how well consumers' declared predispositions predict their actual buying decisions or how they relate to brand preferences and/or brand identification, as suggested by Bhattacharya and Sen (2003). Moreover, this study does not consider the evolution of consumers over time. These issues may be relevant to the extent that consumers' sensitivity to CSR and corporate ethics may be related to their maturity, loyalty, and identification, as well as their socioeconomic class and income.

Additionally, future research should attempt to operationalize the concept and use of CSR in the design of research instruments. In particular, the methodology on ethics could be enriched. Furthermore, future studies should examine other geographic environments, other industries.

Although this study examined only the customer perspective, it would be interesting to investigate the importance that business managers assign to consumers in developing programs to assure ethical behavior in their companies. Similarly, it would be interesting to study the process of implementing ethical standards within organizations and the perception of employees of the business ethics that prevail in their companies.

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Adoption Factors and Implementation Strategies of on-Premise and Cloud Based ERP Systems by SMEs in Thailand

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Abstract

Over the past years, Thai small and medium enterprises (SME) had to deal with changing economic situations and had to adapt to new technological evolutions, representing new challenges as well as new opportunities for doing business. With the forthcoming ASEAN Economic Community 2015, Thai SMEs will face an increase in competition and, as a possible solution, may have to adopt new information systems to remain competitive.

The objectives of this study are (1) to identify the factors facilitating or hindering the adoption of cloud-based enterprise resource planning (ERP) systems by Thai SMEs and to (2) provide an analysis of the adoption and the implementation strategies.

The research is based on a qualitative exploratory approach, relying on semi-structured interviews with IT experts, IT managers and business owners to collect data, and on the template analysis method to analyze the data.

Respondents have identified trust, cost control and the security of financial data as the most important factors for the adoption and selection of on-premise and cloud-based ERP systems. The adoption rate of cloud-based solutions appears to be low and local ERP providers face the challenge to discover the reasons why business owners do not adopt their solutions. First generation business owners prepare the transition to the next generation and want to better organize and structure how their businesses operates, but their own confidence in the technology still limit the adoption pace and the decision process.

SMEs' strategies usually consist in a step-by-step implementation, consolidating the changes and readjusting the goals in case of setbacks, minimizing the consequences. ERP providers' strategies focus on new offerings with enhanced features and slowly integrate change management and extended support.

Keywords: ERP, Cloud Computing, Small and Medium Enterprise (SME), Mobile App, Open Source, Organizational Innovation Adoption model.

1. Introduction

With the forthcoming ASEAN Economic Community (AEC) 2015, companies in Thailand will face new opportunities and new challenges, accompanied with an increase in competition from other ASEAN members on their respective local and external markets. Small and medium enterprises (SME), which represent a large majority of Thai companies, employ 84% of the workforce and contribute to 37 % of the GDP (The Asia Foundation, 2014), will also have to prepare themselves and deal with this new economic context.

Following the crisis of 1997, the development of globalization and new trading agreements, Thai SMEs are put under pressure and *“have been forced to introduce changes that have affected all aspects of operations, including being more efficient in processing, reorganizing management, developing new products and services”* (Rujirawanich, Addison, & Smallman, 2011). In order to survive and grow. SMEs *“are required to improve the quality of*

their business. One way to increase such competitive advantage is by improving the effectiveness and efficiency of the planning and management of company resources, which can be achieved by using information technology" (Handayani, Hidayanto, & Budi, 2013). Other authors also considered that "*Enterprise Resource Planning (ERP) as one of the solutions for their survival*" (Kale, Banwait, & Laroiya, 2010) and that the ERP is a significant tool to increase the effectiveness and competitiveness of the SMEs by enhancing the efficiency of all the business operations in an organization and increase the optimal income (Khakeel & Sulaiman, 2013).

ERP systems are constantly evolving, from manufacturing resource planning (MRP), to ERP, ERP II and Extended ERP in the 2000s. Among the most interesting outcomes of this evolution are the cloud-based ERP systems which are supposed to provide cost-effective new capabilities and new services to SMEs. "*Cloud computing is mostly described as an IT deployment model for the on-demand, online delivery of scalable IT services on the basis of virtualization technology. In this context, the term 'cloud' refers to data centers that offer virtualized computer resources and services*" (Walterbusch, Martens, & Teuteberg, 2013).

Free/open source software, mobile applications and Internet of Things are also technological trends which have been identified as potential adoption factors and that will have effects on the ERP industry. On the ERP market, another trend is emerging, as ERP providers are targeting specifically SMEs and try to provide adapted solutions and services to them.

2. Methodology

For the methodological aspect of this exploratory research, a qualitative research design has been identified as the most suitable for collecting and analyzing the data. Denzin and Lincoln (2011) asserted that "*qualitative researchers study things in their natural settings, attempting to make sense of or interpret phenomena in terms of the meanings people bring to them*" (Ritchie, Lewis, McNaughton Nicholls, & Ormston, 2013, p. 3). The qualitative research is based on semi-structured interviews as "*it provides a considerable amount of data collection both in quantity and quality*" (Jlelaty & Monzer, 2012). Kvale (2009) has described qualitative interviews as "*professional conversations that have a structure and purpose, where two parties discuss a theme of mutual interest*" and this is "*through the interaction between the researcher and the respondent that knowledge is produced*" (Alajbegovic, Alexopoulos, & Desalermos, 2013).

For this study, the population includes all actors of the ERP markets and all entities which are associated with the ERP adoption process. According to Andersson and Wilson (2011) and Laurinavicius and Venckauskaite (2012), usually 3 parties are involved in the ERP procurement process: the buyer organization, the software providers and a consultancy firm which interacts with both parties. Hoseini (2013) stated that 3 groups of enterprises can be considered: a) the enterprise already using a cloud based ERP, b) the enterprise with a plan of adopting this technology and c) the enterprise without plan of adoption the technology.

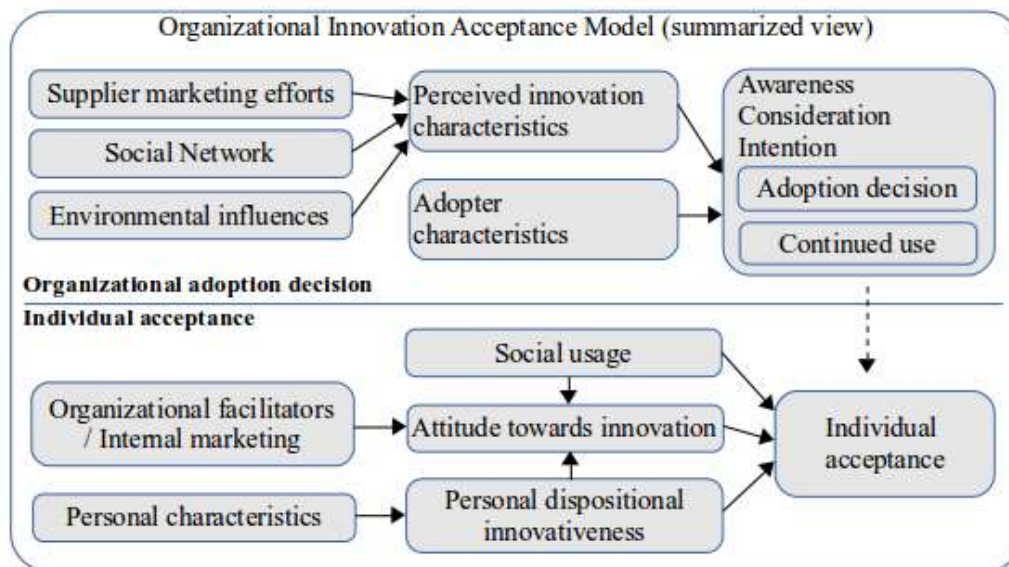
The type and number of respondents need to be defined in relation to the objectives of the study as "*choosing few respondents can be beneficial when the problem is not thoroughly explored and in need of in-depth analysis*" (Kvale, 1996) cited in (Idorn, 2008).

The data collection technique is based on a 7-stage design process, as described by Kvale and Brinkmann (2014) for the interview investigation: 1) Thematizing the interview project, 2) Designing, 3) Interviewing, 4) Transcribing, 5) Analyzing, 6) Verifying, 7) Reporting (p. 23).

The designing phase consists in defining the interview: to prepare a plan for the study. Kvale and Brinkmann (2014) recommended the design of an interview-guide prior to the interview phase (p. 156), which used as a script, allows the researchers to 1) maintain the control over

the conversation, 2) collect the relevant and important data, 3) find the necessary answers required by the study and 4) define the scope of the discussion around the selected topics (Laurinavicius & Venckauskaite, 2012).

In order to design the interview-guide and to prepare the analysis phase, elements of the Technological-Organizational-Environmental (TOE) framework and the dual perspective Organizational/Individual from the Organizational Innovation Adoption (OIA) Model (Frambach & Schillewaert, 2002) have been used as references. Even if a qualitative research usually does not require any framework, as no hypothesis is supposed to be tested, these elements provide a basis to develop the investigation as well as an analytical tool for better assessing and understanding the decision and adoption processes of SMEs owners and SMEs managing directors.



For the data collection phase, several SME owners, managing directors, IT advisors, IT consultants and IT managers have been identified, contacted and interviewed. There are several limitations concerning the population and the sample. First there is a geographical limitation as only respondents based in Bangkok or doing business in the Bangkok area have been interviewed. Second, the interviews have been conducted in English only, reducing the population to English-speaking respondents.

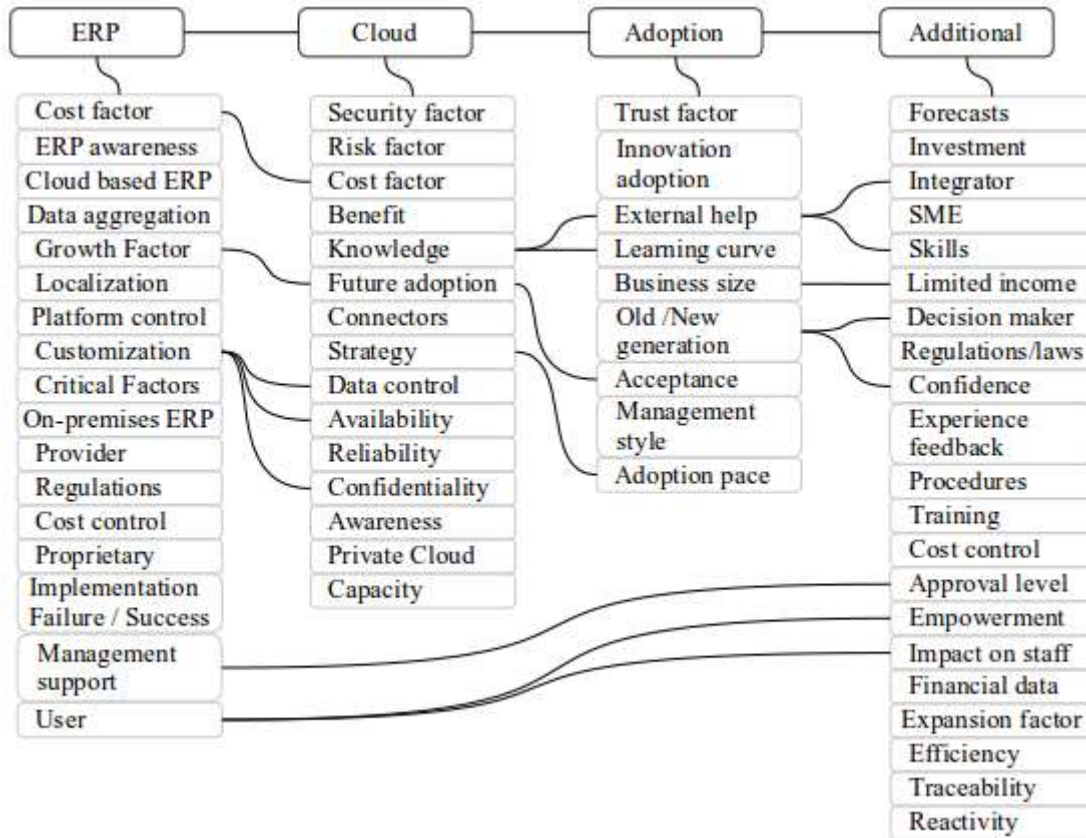
3. Data Analysis

For the analysis stage, the process relies on template analysis and the use of codes as described by Cassell and Symon (2004). Template analysis is characterized by *"the development of conceptual themes and their clustering into broader groupings, and the eventual identifications across cases of 'master themes' with their subsidiary 'constituent themes'"* (Cassell & Symon, 2004, p. 247). A code is defined as *"a label attached to a section of text to index it as relating to a theme or issue in the data which the researcher has identified as important to his or her interpretation"* (Cassell & Symon, 2004, p. 257). By going through the data, sections of text have been identified as relevant to the project goals and labeled with corresponding or new defined codes. The initial set of codes has been designed, based on elements from the TOE framework, the OIA model but also from the related information technologies: cloud computing, open source, mobile apps.

The final set of codes is a collection of labels, regrouped in several sub-sets such as

adoption, cloud, Open-source, AEC, technology, ERP and mobile ERP, and represents a combination of technological, environmental, organizational, personal and business related factors affecting the adoption and implementation processes, as discussed by the respondents.

Final template with the most relevant codes (limited to ERP, cloud, adoption)



4. Results and discussion

During the first phase of data collection, a series of informal discussions were organized with SMEs owners and general managing directors (MD) to assess the attractiveness and the scope of the topics, while simultaneously improving the interview guide and the focus on particular decisions and adoption factors. In the second phase, a total of 8 interviews were held with various IT managers, IT consultants, ERP providers and SMEs owners and managing directors.

The respondents have very distinctive backgrounds and, as they are involved in different industries, represent a broad range of information sources. They are all based, or are performing business activities, in the Bangkok area.

Respondent	Function	Industry
1	Business owner	Manufacturing
2	IT consultant & advisor	Food
3	IT manager	Goods
4	IT manager	Goods
5	IT advisor	Chemical analysis
6	Business development director	ERP provider
7	Business owner	ERP provider
8	IT operations manager	Beverage

4.1 Cloud computing and ERP systems

Concerning the cloud industry and the available solutions and services, several characteristics, factors and criteria have been identified and investigated in order to assess the attractiveness of the technology and also to understand the possible adoption processes and the respective outputs.

Cloud computing services and applications are commonly described with the following characteristics: a) On-demand self-service, b) Broad network access, c) Resource pooling, d) Rapid elasticity, e) measured service (Mell & Grance, 2011).

Under the term “Cloud computing” several concepts exist, which are implemented in the form of 3 different types of services or services models (Wang, 2012), including SaaS (Software as a Service), PaaS (Platform as a Service), IaaS (Infrastructure as a Service) or HaaS (Hardware as a Service) (Mell & Grance, 2011; Velte, 2010; Gorelik, 2013). Another aspect of cloud computing is that different deployment models are available: Private cloud, community cloud, public cloud and hybrid cloud (Mell & Grance, 2011; Velte, 2010; Liu et al., 2011).

Several sets of key adoption factors—performance/functionality, integration, flexibility and ease of use, reliability, support, cost of ownership, security, scalability, cloud model, time to market, and risks—for SaaS solutions and cloud based ERP systems have been identified in different research works (E.g. Agostini, 2013; Jlelaty & Monzer, 2012; Östling & Fredriksson, 2012). These factors can be perceived as negative or positive in the adoption process and they can be categorized as technological factors, financial factors and strategical factors.

The risks associated with the use of ERP systems in the cloud have been studied in several documents, from the impact to the possible counter-measures and technological feasible solutions. As suggested by Hinks, (2014), though internal or external security issues are a concern for companies, security is still not always included in the organizational strategic priorities list. Among the risks identified by previous researchers, the most relevant ones are data location, data security, availability, performance unpredictability, extra costs for reaching agreed level of services, authorization, regulatory compliance, data bottleneck, limited customization (Brodkin, 2008; Östling & Fredriksson, 2012; Armbrust et al., 2010; Alajbegovic et al., 2013; Hoseini, 2013). *“The security issue is one of the biggest doubts when users think about adopting Cloud Computing as the users do not have their own data in their companies anymore”* (Benlian & Hess, 2011) cited in (Jlelaty & Monzer, 2012). Jlelaty & Monzer (2012) also asserted that *“security issues can be seen as an opportunity and a risk at the same time, but it is mainly a doubt as it is seen by cloud adopters and non-adopters”*.

Regarding the ERP and the SMEs, different aspects and factors have been identified. As SMEs have different capabilities and levels of adaptivity than larger companies, service providers need to understand what their respective requirements are toward such systems:

“providers need to be aware of common concerns that SMEs experience when they make their adoption decision, such as locality, and trialability” (Alshamaila, Papagiannidis, & Li, 2013). An SME may choose to delay the adoption of an emerging but promising technology, until the technology is mature enough or the company is able to invest in it. Several reasons have been identified among others: *“limited budget, lack of experiences in implementing ERP, cost of software and services that are not affordable for SMEs, limited internal capability to implement ERP, and as well as SMEs consider ERP as complex information systems”* (Hidayanto, Hasibuan, Handayani, & Sucahyo, 2013).

4.2 Factors affecting the adoption process

The first factor affecting the adoption process identified by respondents is the awareness of the decision makers about the technologies, the possibilities and the effects of using ERP systems and cloud based solutions.

Apparently, a large proportion of SME owners do not have a basic understanding of the functionalities and purposes of an ERP system. In many case, not only was simple, outdated finance or accounting software being used in the firms, but no plan for updating or migrating existed. This low level of technology awareness is cited as a main factor for not investing in a new IT system. But the first generation of business slowly prepare the transition to the new generation, who is more educated or familiar with the technology, is better able and more willing to understand not only the advantages, but also the risks of adopting new IT systems.

Second, depending on the type of industry and the relative position of the company within that industry, as the current or expected competition level was not considered important, the companies felt they neither had to improve their competitiveness nor invest to support business growth.

Another critical factor commonly cited by the respondents for the adoption decision is trust: trust in the advisor, in the IT consultant and in the technology. This help to explain why business owners usually do their own selection for the future IT system, with or without help from trusted persons and why they choose to implement step by step.

First, they will try to identify site references where the technology has been successfully implemented or get information from their relationships and social networks until they reach a sufficient level of awareness and confidence. Only when the business owner is confident enough with the technology, the adoption process will progress to the next stage.

A third factor is related to the centralization of procedures and decisions around the SME owner. Very often the organization relies on simple business processes and simple level of delegation, all centered around the managing director or owner. Consequently, the adoption of an ERP system means that formal procedures will have to be defined and implementation, different levels of responsibility and delegation will have to be created and assigned to users. This will create a shift from the traditional way of doing things, having an impact on the organizational level and on a personal level for every member of the organization.

These types of change and the associated effects have been identified by several participants as a main issue for the adoption of an ERP system. If the employees are not ready to use formal procedures and to accept the newly created tasks and responsibilities, the SME owner may decide to postpone or adapt the implementation because of these impacts on the organization.

Anticipating a future increase in the business and limited by the company's capabilities, some SMEs have considered using ERP systems to support the company's growth. A collateral factor is to have a better capacity to deliver more added value to the customer.

Additionally, forecasts have been identified as a relevant and required functionality, mostly planned to be invested in within a long term strategic plan. Acquiring advanced IT capabilities in forecasts and in business decision-making has been described as a requirement of future development plans to sustain business growth.

During the interviews, it was reported that internal processes within many SMEs are primarily manual, requiring and producing a substantial amount of paper work. The implementation of an ERP system has been considered as an effective solution aimed at streamlining and controlling any organization, optimizing internal processes, thereby improving staff efficiency and productivity, and reducing waste. In this particular context, as businesses must produce different types of administrative documents, including invoices and receipts, an awareness of regulations and laws in Thailand is required; therefore, specific requirements for the ERP systems must be identified to integrate with and support administrative procedures. This localization factor has a great importance in the selection process and adoption decision of an ERP system.

The other major factors are the cost of acquisition, the cost control and the business overview. Adopting an ERP system is justified only by a positive Return on Investment (ROI) and the cost of using an ERP system must be compensated with benefits.

Having clearly defined and implemented processes associated with the acquisition and aggregation of business data (production, inventory, accounting) could improve the detection and the control of inefficient or costly tasks. It would also provide a better understanding and overview of the business activities, supporting the process of business decision making.

Both SME owners and ERP providers have also named the financial data and the associated risk as a main hindering factor for using a cloud solution. Private cloud systems could be an alternative but some respondents pointed out that this is not very popular among the SMEs.

The perception of cloud based services is dependent on the function and the level of knowledge of the respondent. The IT specialists and consultants consider that cloud based ERP could suit SMEs better than on-premise systems but cite the quality of service and risks as the main hindering factors. With regards to quality of service, additional costs of quality of service, whether calculated annually or to reach the required level of service, were cited as being a problem; as were the stability and availability of the communication infrastructures in Thailand.

Also the lack of control of the system and the lack of isolation are among the factors negatively affecting the adoption decision.

Among the other factors for adopting new IT solutions, several respondents cited the access to real time information via mobile phone and the connectivity to external sources of data or connected devices, but also emphasized that these factors were more significant for future investments plans and less significant for ERP adoption plans.

4.3 Analysis of the adoption and implementation strategies of ERP systems

Usually the traditional SME owner wants to understand every single aspect of the company's internal functioning. Consequently, when looking into the implementation of an IT system, the business owner—and direct partners, who are quite often same-family members—requires a step-by-step process with simple stages and simple systems to enable them to fully understand how to use it, how to control it, and what the consequences and impacts of its adoption will be.

They also tend to prefer to implement module by module. The most critical ones will be implemented (with or without help of a system integrator), and depending on the growth rate and the investment capabilities, additional spending can be planned.

This step-by-step approach also limits the implementation failure and any associated

costs. If the implementation of a module is considered unsuccessful, an application or a module from another provider could be implemented or the implementation could be dropped completely. In addition, the implementation's goals can also be modified and the time frame adapted in order to avoid major setbacks and to consolidate what has already been successfully implemented.

Different types of adoption and implementation have been described by the participants. In one case, a solution based on the open-source ERP system (FOS-ERP) OpenERP has been selected and implemented, only after the IT consultant was certain that the system was able to support specific requirements, such as local regulations, and could be customized in order to generate the required documents. This IT consultant also decided to use a cloud-based platform (PaaS) from Amazon to host the FOS-ERP, with a goal of minimizing IT maintenance, required IT knowledge, and operating costs; and, they also used connected devices to input inventory data into the ERP system.

The strategy was clearly dictated by the needs of the company including better procedures, data acquisition, cost control, by the expertise of the consultant with regards to implementation, security and support and by the acceptance by the SME owner of new technologies.

The role and importance of consultants was emphasized during the interviews. They interact between the IT environment and the business environment, requiring an important expertise with the ERP system and the understanding of the needs and expectations of the SME, while configuring and customizing the system. He acts as a change agent in the process of innovation diffusion.

The adoption and implementation strategies by SMEs are also affected by external sources of information. Thai SME owners and managing directors prefer to rely on personal networks, site references and positive feedback to assess new solutions and to decide whether to adopt them or not.

The entire implementation strategy is usually defined according to the business goals, the involvement and presence of support teams (external and/or internal), the available internal skills, and the management support. For the adoption of an ERP system, it is essential that this is a top-down program where the Top Management provides authorization, backing, and support to both the team implementing it and the team that will use it. The benefits must be made visible to the final users and the sooner they are involved in the implementation phase, the higher the acceptance will be.

The whole strategy should also take into consideration the impacts and effects at different levels during and after the implementation. During the implementation, the superusers and business process owners (BPO) should be given extra resources in order to support the implementation of the procedures into the ERP. During the early phases, the entire strategy should also take into consideration, anticipate, and deal with the impacts and effects at different levels during and after the implementation, especially on the employees.

The dynamics of the acceptance of any new technology should be fully comprehended by the ERP provider, by the SME owner, and by the implementation team. Additionally, a Change Management approach should be included in the implementation plan as this will help overcome employee resistance, limit turn-over, responsibility and human resource issues.

The adoption strategy by the SME is also affected by the ERP providers and their cost models. ERP providers have been in an innovative phase for many years, creating value and offering new types of solutions and products. Now, they should focus on capturing more value (Michel, 2014) from their markets and develop new ways to do it.

For the ERP providers, a challenge is to obtain site references and to discover the reasons why business owners do not adopt their solutions, either on premise or cloud-based. One further obstacle is to obtain information from implementation projects which were

unsuccessful, as: 1) SME's are reluctant to provide feedback as to why they were unsuccessful; and, 2) because implementation goals are often modified once the full scope could not be achieved and adapted to limit the consequences of unsuccessful implementations.

5. Conclusions

This exploratory qualitative study aimed to analyze the adoption and the implementation strategies of ERP systems by Thai SMEs, as well as to identify relevant factors affecting the adoption of cloud-based ERP systems. The population was limited to IT experts, IT managers, SMEs owners and managing directors, based or doing business in the Bangkok area. The 8 semi-structured interviews dealt mostly with adoption and implementation strategies as well as the related factors.

Further studies should include larger samples and different types of population and could develop the technical aspects of the technologies and implementations.

From the SMEs' points of view, trust in the partners, in the delivered services and in the technologies appears to be the most important factor for the adoption. The owner's confidence with the technology limits the adoption pace, as he prefers step-by-step approaches with implementation, stabilization, and consolidation phases. Costs of ownership, impact on the staff, implementation risks affect also the decision process.

SME owners want to invest in ERP systems, expecting positive benefits such as clearly defined and efficient business processes as well as improved productivity. As the Return On Investment is another major reason for adopting an ERP and as SMEs have limited income, the type of ERP, the type of modules and the pace of implementation is constrained by financial factors but also but the type of industry the SME is doing business in and by the internal capabilities of the SME.

Current adoption of cloud-based ERP systems by Thai SMEs is quite small and is mainly affected by the confidence and trust of the SME owner towards information technologies. Thai ERP providers are offering cloud-based public and private solutions, but these have little success among Thai SMEs, primarily because decision-makers are worried about data security and availability.

Among the technological factors, the connectivity with intelligent devices and mobile ERP or mobile access to data are interesting features to the customers.

With regards to FOS-ERP, examples of implementations are available, but the decision to adopt such solutions is limited by the localization factor, the level of customization needed, and the level of technological knowledge required to implement them.

Concerning the adoption and implementation strategies, the perspectives of the SME owners and the ERP providers focus on different aspects. SMEs acquire a technology to have a better cost control and an overview on the business. The ERP providers focus on strategies to offer solutions with added value. Their strategies should integrate change management approaches and extended customer support, helping their customers to anticipate and deal with the impacts and effects following the implementation of an ERP and the potential increase in productivity, cost control and decisions delegation. ERP providers should develop new way to capture value, given the current situation of SMEs in Thailand and the forthcoming AEC 2015.

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Unlocking Business Potential: Infrastructure Needs for Corporations around the World

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Abstract

This article looks at four related questions: How much infrastructure investment is needed to maintain current capital stocks? What is the quality of existing infrastructure? What type of infrastructure is required by the business community? And what role could the private sector play in financing it? We use official government data and survey data from private companies to answer these questions, covering most countries of the world. The main conclusion is that an infrastructure investment push is needed to maintain the deteriorating stock of capital. This is particularly true for many emerging and low-income countries, including those in the ASEAN region. The effort should be concentrated in improving transport and energy infrastructures, since these are crucially affecting the capacity of companies to innovate and expand their activities. While current public budget constraints make it difficult to rely solely on public sector initiative, the private sector seems ready to collaborate in that effort, which generates a renovated interest in public-private partnerships.

Keywords: business potential, infrastructures, public investment, public private partnerships (PPP)

1. Introduction

After the global financial crisis, economic growth has been weak in most advanced economies, while economic activity in emerging markets and low income countries has also slowed down. The IMF has recently warned against a new era of mediocre growth (IMF, 2014b), and experts predict a forthcoming period of “secular stagnation” (Summers, 2013). In this context, companies in the private sector are facing growing uncertainty about the future. In parallel, policy makers are calling for a new push to public investment, particularly in infrastructure (IMF, 2014a). The objective of such a push would be to reactivate economic activity in the short run and to increase potential growth in the medium run. While the impact of infrastructure construction in short-term growth tends to be positive and similar to any other increase in public spending, the medium-term impact depends heavily on the efficiency of the projects implemented. Only infrastructure investment that helps to close existing gaps and to eliminate bottlenecks to the private sector’s activities ends up being truly useful to unlock the business potential of corporations. Otherwise, countries that undertake inefficient investment may end up with empty roads, unused airports and bridges to nowhere, and a big amount of debt.

Traditionally, basic transport, energy, and communications infrastructure have been provided by the public sector, due to the presence of high fixed investment costs associated with natural monopolies. This is why most analyses in the field of infrastructure investment gaps take the perspective of the government sector. Slowly, some private sector studies are paying attention to this issue, as strategic business consultants have realized that bad or

¹ Fiscal Affairs Department, International Monetary Fund. The views expressed in this article are those of the authors and should not be attributed to the IMF, its Executive Board, or its management.

insufficient infrastructures may become big obstacles for the expansion of companies' activities.

This article combines the public and private sector perspectives and uses recent reports generated by both government institutions and private companies to tackle four related questions: How much infrastructure investment is needed to maintain current capital stocks? What is the quality of existing infrastructure? What type of infrastructure is required by the business community? And what role could the private sector play in financing it?

Based on data coming from the latest IMF's Fiscal Monitor and World Economic Outlook, from the Global Competitiveness Report, and from reports by McKinsey, the Urban Land Institute and Ernst & Young, and KPMG, we present decisive evidence showing that infrastructure needs are on the rise. This is a fact recognized by both the public and the private sector (IMF, 2014b; McKinsey, 2013; Urban Land Institute and Ernst & Young, 2013; KPMG, 2009). One of the major contributions of this article is that it echoes recent surveys answered by the business community, including CEOs from the largest companies of the world. Private sector responses send a clear message: insufficient or low-quality transport and energy infrastructure may be a great obstacle for their business activity. Medium-term business plans depend heavily on tackling those infrastructure needs identified by the private sector. And most importantly, more private sector involvement in financing these new projects is seen as desirable in a context of strong government budget constraints.

The article is organized as follows: Section 2 presents data estimating how much infrastructure investment is needed, in terms of the amount of the new investment required to maintain current capital stocks. Section 3 offers a picture of infrastructure needs in terms of recent quality indicators. Section 4 uses survey data to present the view of the business community in terms of what type of infrastructure they deem crucial for their business activities. Section 5 looks at financing options through public private partnerships. Section 6 summarizes and concludes. Note that while the article looks at infrastructure needs around the world, including advanced, emerging and low-income countries, it also pays a particular attention to the group of ASEAN economies.

2. How much infrastructure investment is needed?

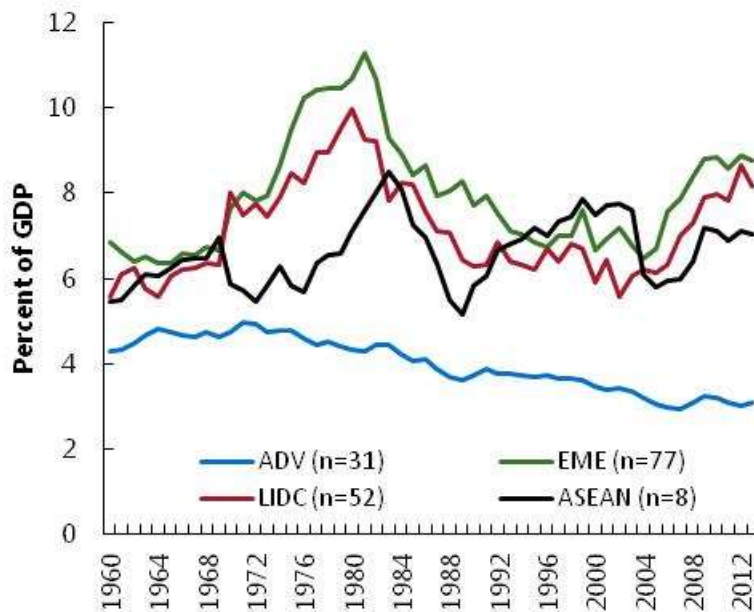
While appealing, this question cannot be answered in a straightforward manner. First, there are no comparable data available on the stock of public and private infrastructures in many countries of the world. And second, there is no optimal level of infrastructure that could be used as a benchmark to estimate infrastructure gaps. Every country at each stage of development has different infrastructure needs, subject to varying population pressures, geographical conditions and productive capacities.

Instead, this question has been approached in an indirect way, estimating current levels of public capital resulting from accumulated public investment done in the past (IMF, 2014a). Using perpetual inventory method and different assumptions about the depreciation rates that are standard in the literature (Gupta and others, 2014), the International Monetary Fund (2014a) has recently shown that public investment has systematically declined in advanced economies since the 1960s, but has increased notably in emerging and low-income countries, as can be seen in Figure 1. Since 2000, public capital has been declining in advanced economies and low-income countries, as a result of the decline in the amount of investment and the increase of investment inefficiencies, respectively. Public capital stock in emerging markets and in the ASEAN region have remained somewhat constant (Figure 2).

In this context, the IMF estimates that government investment would have to increase by almost 2 percentage points of GDP through 2030 just to stabilize the stock of government capital in advanced economies. In developing economies, recent investment growth has not decisively boosted productive capital, because it has been affected by important inefficiencies

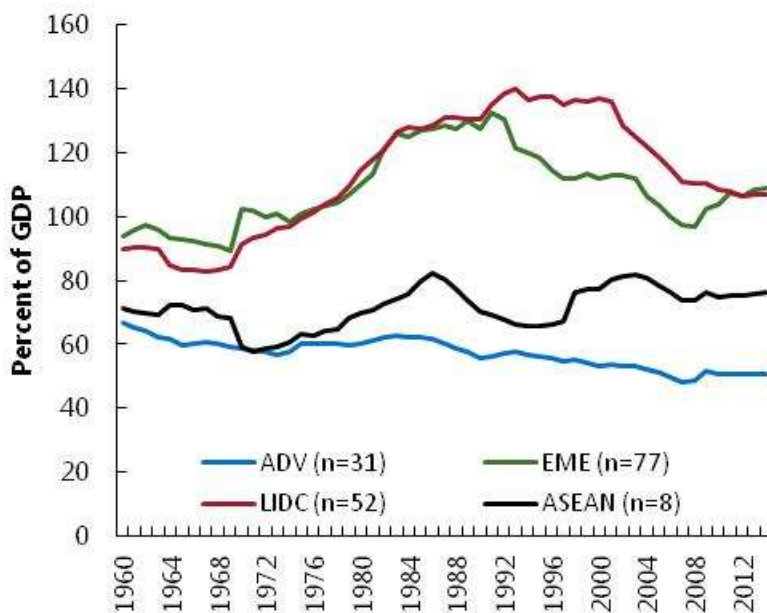
in the selection and implementation of investment projects. Reducing inefficiencies would thus be crucial to help close the infrastructure gap in developing economies. More specifically, according to the Fund, “reducing all inefficiencies by 2030 would provide the same boost to capital stock as increasing government investment by 5 percentage points of GDP in emerging economies and by 14 percentage points of GDP in low-income countries.” (IMF, 2014a; pp. 36)

Figure 1: Real Public Investment, percent of GDP



Source: IMF staff estimates

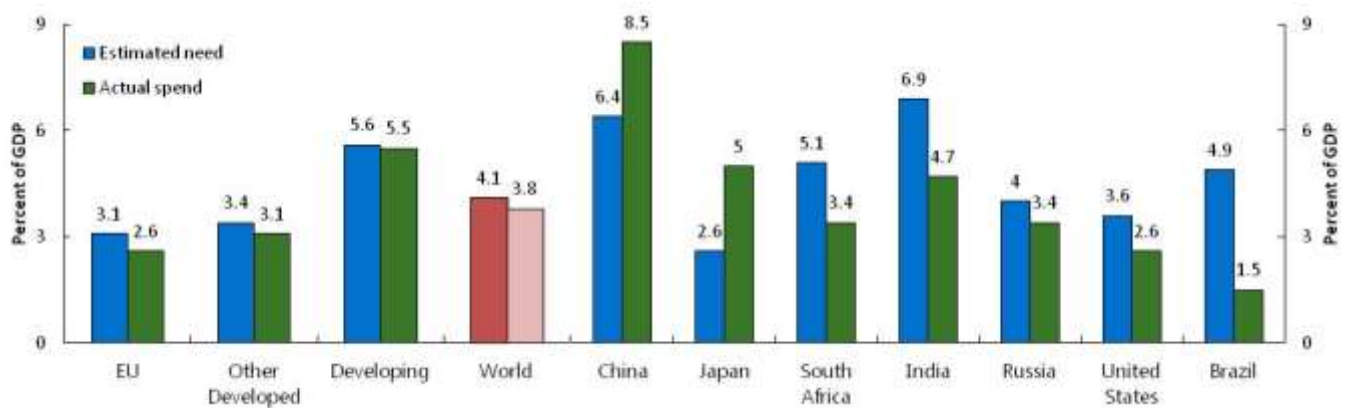
Figure 2: Public Capital Stock, percent of GDP



Source: IMF staff estimates

The private sector has arrived at similar estimated figures in relation to future investment needs in infrastructure. McKinsey (2013) used three related approaches to calculate a baseline infrastructure need for the world, ranging from \$57 trillion to \$67 trillion from 2013 to 2030 (in 2010 prices).² That calculation included economic infrastructure covering roads, rails, ports, water and telecoms, but excluded social infrastructure such as schools and hospitals. According to McKinsey’s figures, this would imply an investment push equivalent to at least \$3.2 trillion a year, thus increasing the average ratio of infrastructure investment to 4.1 percent of GDP from a current average of 3.8 percent of GDP (Figure 3). The estimates for additional investment needs calculated by McKinsey are not homogeneously distributed. While Europe would have to increase its investment ratio from 2.6 to 3.1 of GDP and the US from 2.6 to 3.6 percent of GDP, China and Japan would have to cut their current investment levels by 2.1 and 2.4 percentage points respectively.

Figure 3: Average infrastructure investment needed 2013-2030, percent of GDP



Source: Own elaboration, data from McKinsey (2013)

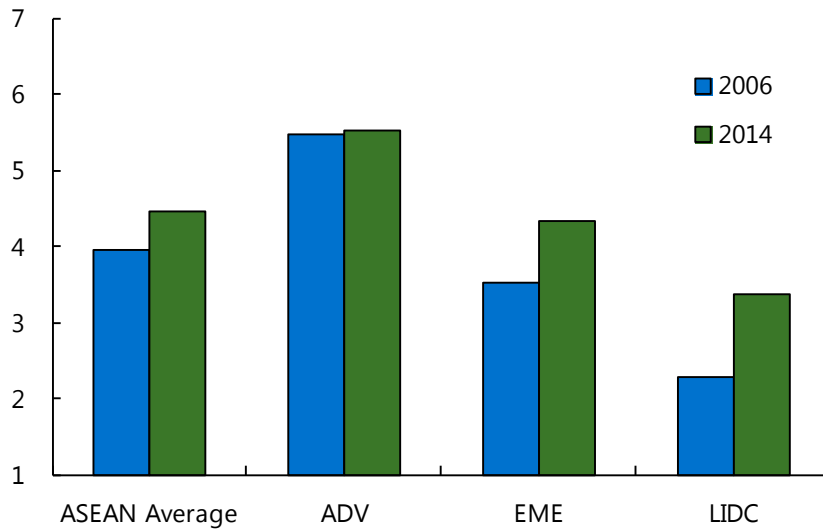
3. What is the quality of existing infrastructure?

The more comprehensive indicator available to measure the quality of infrastructures is the one generated by the Global Competitiveness Report (World Economic Forum, 2014). Since 2006, the GCR offers annual figures on the overall quality of infrastructures based on survey data.³ It also offers quality assessments on specific types of infrastructure, including roads, railroads, ports, airports, electricity infrastructures, and telephones (both fixed lines and mobile phones). The latest data available shows that the improvement in the quality of infrastructure has been minimal in advanced economies between 2006 and 2014. In contrast, the improvement in low-income countries has been significant. The overall quality of infrastructures also improved in emerging markets economies, although at a slower pace. Within emerging economies, the improvement in the perceived quality of infrastructure in ASEAN economies has been slightly lower than the average amelioration observed in emerging market economies (Figure 4).

² The three approaches are the following: new infrastructure investment needed to return to the historical average investment-to-GDP ratio; new investment needed to maintain the capital stock at 70 percent of GDP; new investment needed to respond to projected population and economic growth as calculated by a panel of international organizations.

³ The overall quality of infrastructure index is based on the following question: How would you assess general infrastructure (e.g., transport, telephony, and energy) in your country? [1 = extremely underdeveloped—among the worst in the world; 7 = extensive and efficient—among the best in the world].

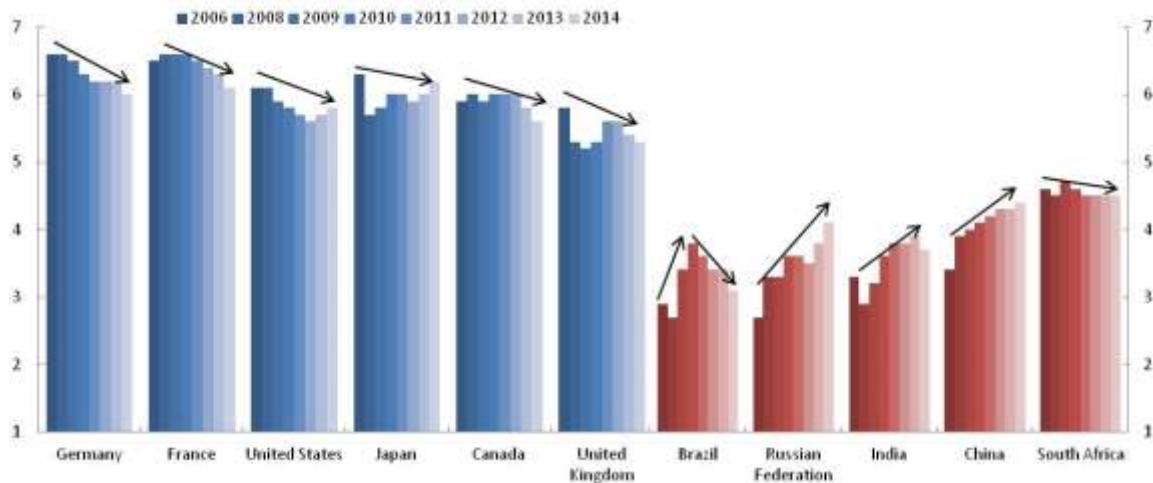
Figure 4: Overall quality of infrastructures 2006-2014



Source: Own elaboration, data from Global Competitiveness Report (2006; 2014)

Interestingly, the comparison between G-7 countries and BRICS shows that countries like Germany, France, United States, Japan, Canada and the UK have systematically scored lower every year during the second half of the past decade. On the contrary, great emerging countries like Russia, India, China, and to a lesser extent South Africa have witnessed a notable increase in the overall quality index (Figure 5). One exception stands out in the group of emerging economies: Brazil. This was the only BRIC country that reversed its initial tendency and saw a declining trend in the perception of its infrastructures. According to the Urban Land Institute and Ernst & Young (2013; pp. 56-57) “Brazil is experiencing difficult growing pains and is dealing with current inadequate infrastructure (...) due to bureaucratic snafus, coupled with shoddy construction and a lack of skilled labor which have compromised scheduled and constructions outcomes of recent projects. Power blackouts point to a need to make investments in the energy sector. The country’s major cities and ports still lack modern motorway and rail connections, while outmoded airports and air traffic control systems require enhancements to handle expected increases in traffic volumes.”

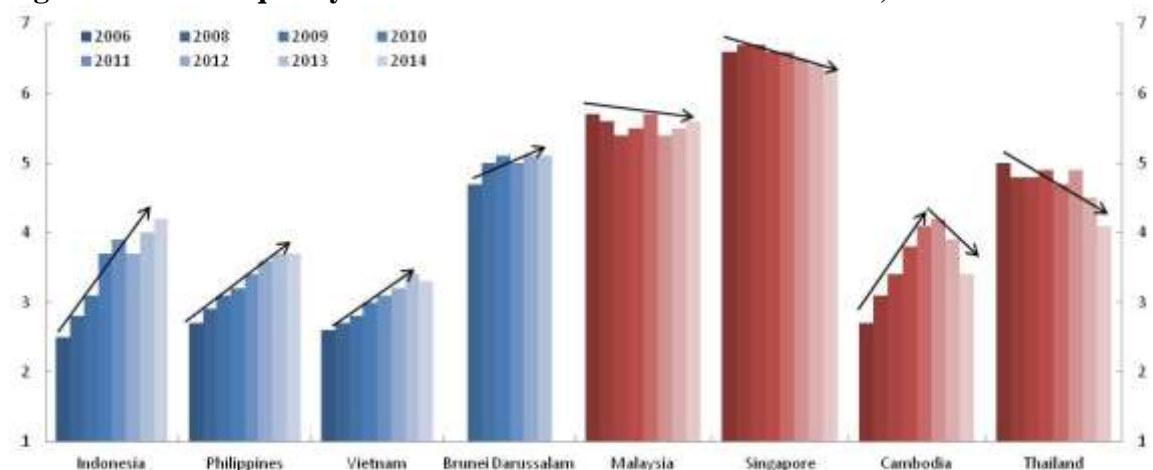
Figure 5: Overall quality of infrastructures in G7 and BRICS, 2006-2014



Source: Own elaboration, data from Global Competitiveness Report (2006; 2014)

The evolution of the overall quality of infrastructure index in ASEAN countries shows different paths. While Indonesia, the Philippines and Vietnam show strong improvements in the quality scores, Brunei and Malaysia barely improved during the period between 2006 and 2014. At the same time, Singapore and Thailand suffered a dramatic decline in the quality of infrastructures, while Cambodia’s score peaked in 2012 and then reversed its previous tendency starting a declining path that continues today (Figure 6). The amelioration in Indonesia has received notable attention, because this country started with the lowest quality score in the region in 2006 and almost doubled its value in only 8 years. Experts from the Urban Land Institute working together with Ernst & Young attribute this improvement to a strong investment push of “more than \$250 billion in a five year plan to build new roads, ports, railways and power plants”. The government’s ongoing commitment to the provision of new infrastructure was reflected in an increase of 15 percent in the 2013 budget (Urban Land Institute and Ernst & Young, 2013; pp. 25), which seems to guarantee a continued effort in the same direction.

Figure 6: Overall quality of infrastructures in ASEAN countries, 2006-2014

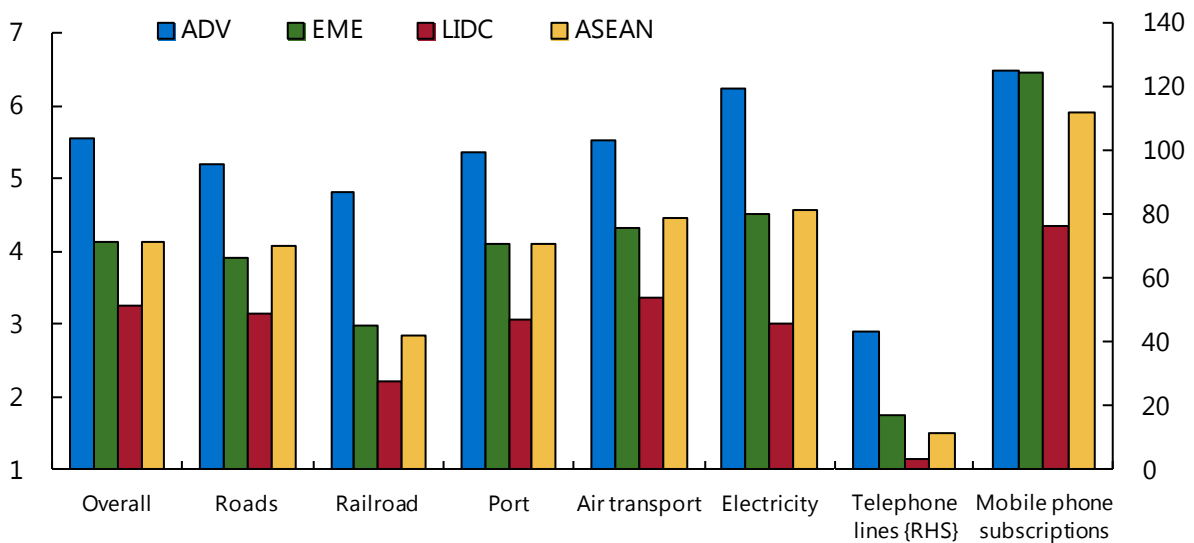


Source: Own elaboration, data from Global Competitiveness Report (2006; 2014)

The data generated by the Global Competitiveness Report can also be analyzed by type of infrastructure. In this respect, disaggregate data for roads, electricity, ports, airports,

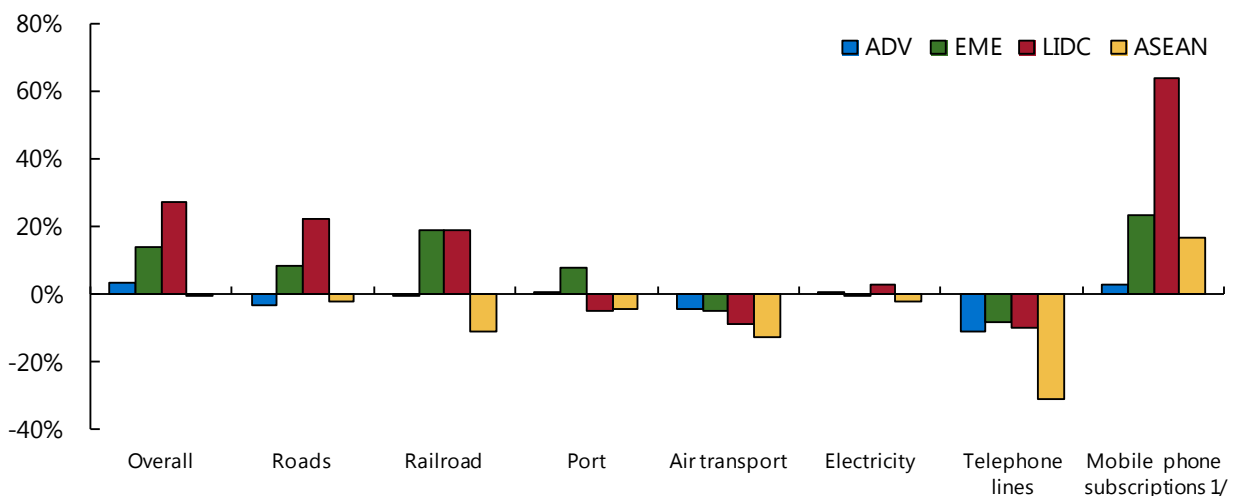
railroads and phones show that advanced economies were still the leaders in all headings in 2014, but with just a narrow margin in terms of mobile phone subscriptions over emerging markets (Figure 7). In this field, ASEAN countries experienced a notable increase in the period from 2008 to 2014, but at the same time they saw an important reduction in fixed telephone lines. An interesting feature of the ASEAN economies when compared with the group of emerging market economies is that ASEAN countries witnessed average reductions in the quality indicators of roads, railroads, and ports, while the group of emerging countries saw significant improvements in those same areas. The decline in the perceived quality of airports was, however, a common feature in both groups of countries (Figure 8), which could signal a future niche for investment.

Figure 7: Overall quality of infrastructures in ASEAN countries, 2014



Source: Own elaboration, data from Global Competitiveness Report (2014)

Figure 8: Change in the quality of infrastructures by type, 2008-2014



Source: Own elaboration, data from Global Competitiveness Report (2008; 2014)

1/ Mobile phone subscriptions data are only available 2010-2014.

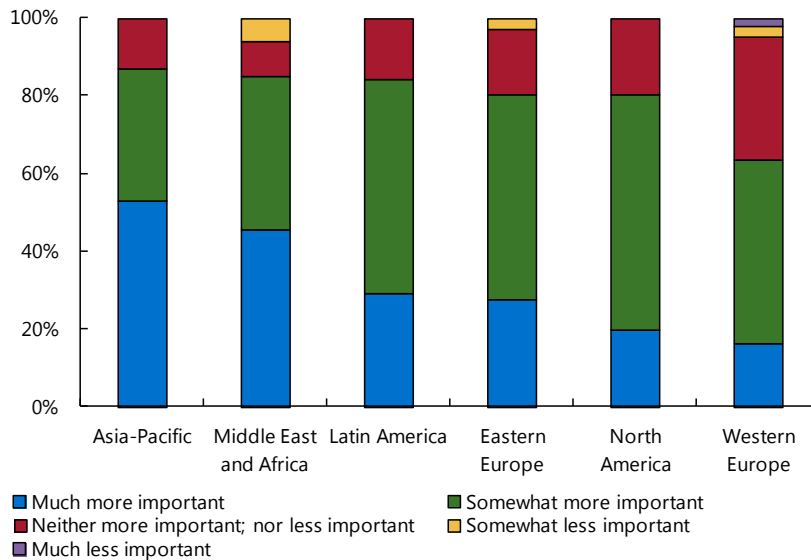
The faster improvement in the quality of infrastructures in the BRICS (relative to ASEAN countries) is probably explained by the strongest performance of a single non-ASEAN economy. China clearly stands out in this respect. Over the past 20 years, “trillions of dollars’ worth of infrastructure investment has transformed China into an exemplar of urban transit, expansive highways, vanguard high-speed intercity rail, and highly efficient ocean ports” (Urban Land Institute and Ernst & Young, 2013: 19). In 2012 China opened the largest high-speed train in the world, covering 1,200 miles in 8 hours, between Beijing and Guangzhou. According to most analysts, China developed a strategy of clusters, based on groups of factories built near terminals that are served by major transport lines, which has proven very attractive for many industries and become a best practice in the field. As a consequence, many other emerging economies (including in the ASEAN region) are likely to follow China’s lead in this area.

4. What type of infrastructure is required by the business community?

It is a common assumption among scholars that infrastructure investment is one of the few areas where the government can facilitate the activity of corporations in the short and medium-term. By facilitating transportation, training skilled workforce and securing cheap energy, the public sector eases bottlenecks and contributes to improve business activity. While theoretically plausible, this assumption has hardly been tested at the enterprise level. In a pioneering work, KPMG and the Economist Intelligence Unit surveyed 328 executives and board members (almost half of whom were CEOs from around the world) and asked them about their infrastructure needs.

The findings of the subsequent report (KPMG, 2009) showed that there is a widespread concern among global business leaders that “governments need long-term strategies for infrastructures, adequately funded and backed by political will”. When asked about the ability of the infrastructure to support their organizations, the results were worrying. Overall, only 14 percent of executives rated infrastructures “completely adequate”, and even in the most positive region, Western Europe, only 24 percent said the same. Most respondents deemed infrastructure “somewhat adequate” (57 percent), while 18 percent were concerned that it was inadequate for their business purposes. But if that picture looked cloudy, business leaders showed even larger concerns about the future impact of infrastructures on their businesses. As an example, when they were asked how important infrastructure would be for their organizations in the next five years, 80 percent of respondents affirmed that they would be “somewhat more important” or “much more important” than today. This strong perception about the important role that infrastructure will play in the future of their organizations was the highest among the business leaders working in the Asia-Pacific region. In that case, 87 percent of business executives considered that infrastructures would be “somewhat more important” or “much more important” during the next five years than they had been until now (Figure 9).

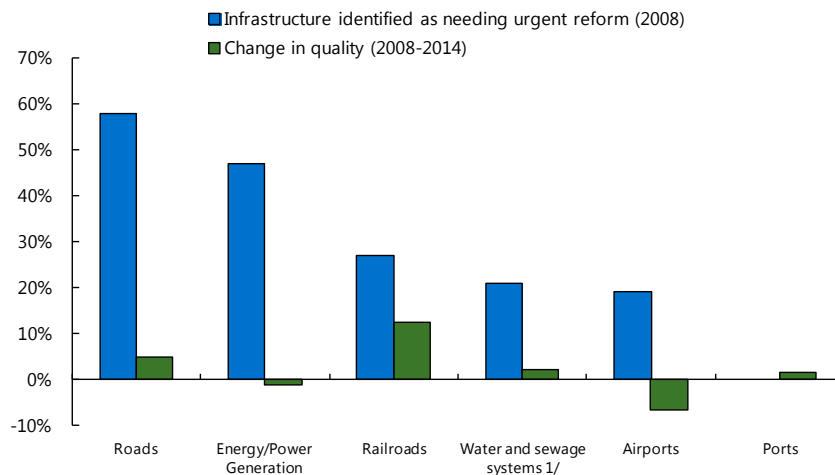
Figure 9: How important would infrastructures be for your organization in the next 5 years?



Source: Own elaboration, data from KPMG (2009)

While investing in infrastructures can accelerate economic growth in the short run regardless of the type of infrastructure that is created, unlocking medium-term business potential requires that investment is directed towards the areas that are most needed by corporations in the private sector. When companies were asked about which aspects of infrastructure needed to be addressed most urgently in the countries where they were located, 58 percent identified roads as a pressing issue, 47 percent also mentioned energy infrastructures, and 27 percent pointed to railroads as a problem that needed to be fixed. These needs were identified by the business leaders in 2008 in the survey conducted by KPMG. Six years later, the improvement in those areas had been minimal. Using an alternative source of survey data, Figure 10 compares the changes in the quality of infrastructures experienced between 2008 and 2014 with the initial needs identified by the executives' interviews by KPMG in 2008. As can be observed, the perceived quality of railroads improved by 12.4 percent, but the perceived quality of roads improved by only 5 percent and the perceived quality of energy infrastructures decreased by 1.2 percent. In those six years, the financial crisis affected the capacity of governments and the private sector to finance new infrastructure investments. But what these data seem to suggest is that efforts could have been better targeted towards roads and energy, which are the type of infrastructure most demanded by the business community.

Figure 10: Thinking specifically about the country within which you are located, select up to three aspects of infrastructure need to be most urgently addressed

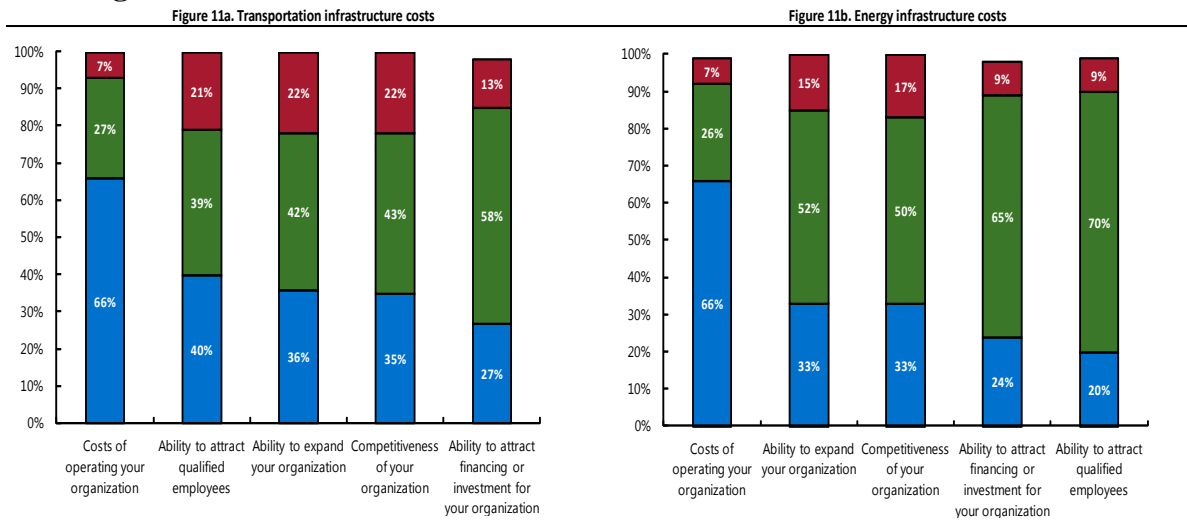


Source: Own elaboration, data from KPMG (2009), Global Competitiveness Report (2008-2014), World Development Indicators (2008-2014).

^{1/} As a quality measure of water and sewage systems is unavailable from GCR, we use WDI's data on Improved Sanitation Facilities (% of population with access)

In this respect, it is important to understand why transportation and energy are crucial infrastructures to improve the business potential of corporations around the world. Typically analysts think of energy and transportation costs affecting the cost structure of small and big companies in the process of creating new products or giving added value to their services. But it is not only about increasing direct costs; weak transportation infrastructure also affects the capacity of companies to attract qualified workers or to expand their business activities. Energy infrastructure also affects the capacity to undertake large projects and attract new investment, and most importantly, lack of good energy networks reduces the competitiveness of businesses. These are precisely the set of factors that business leaders identified. When questioned about how different aspects of transport and energy infrastructures affected their activities, company executives were straightforward. In relation to transportation, executives affirmed that bad transport infrastructures essentially increased their cost of operation and decreased their capacity to attract workers, while limiting the possibilities to expand their organizations (Figure 11a). Similarly, deficient energy infrastructures also were costly to businesses and reduced their relative competitiveness (Figure 11b).

Figure 11: Thinking specifically about the country within which you are located, how does the existing transportation/energy infrastructure increase or decrease the following?

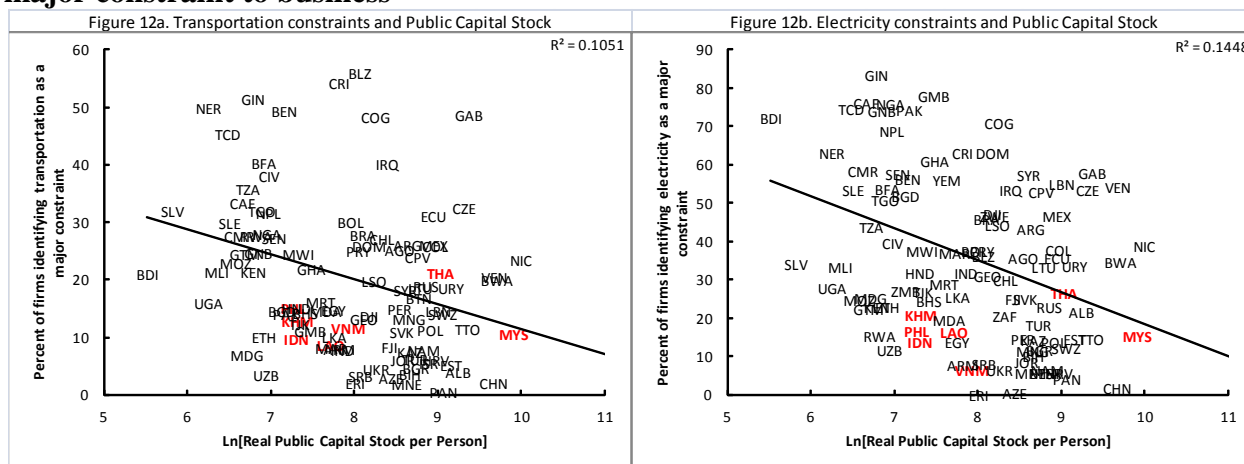


Source: Own elaboration, data from KPMG (2009)

While the concern expressed by business leaders in relation to transport and energy infrastructures is similar in most countries, the truth is that infrastructure constraints vary by country. Corporations doing business in developing countries are likely to face bad transport infrastructures, including insufficient number of roads, a reduced number of paved highways, ports with limited capacity, and airports with lack of sufficient connecting flights. Railways are either inexistent or in bad conditions and companies have to deal with delays and the complications of developing their own hybrid channels of distribution in the absence of transportation hubs. Energy is also another source of problems for doing business in developing countries, because electricity networks are weak, prices are high, and capacity always poses a constraint. Buying generators to maintain activity during black-outs is normally part of the fixed costs that corporations have to finance in developing economies. On the contrary, corporations in Europe or the United States already enjoy a high level of capital stock and their infrastructure needs are very different than those in Latin America or Africa.

Using data from the World Bank Enterprise Surveys confirms that infrastructure constraints are not the same everywhere. Figures 12a and 12b plot the percentage of firms identifying transportation and energy as a major constraint for doing business against the real public capital stock per person. The orthogonal pattern seems clear. As the level of public capital stock increases, the number of firms considering transport and energy infrastructures as a problem diminishes considerably. ASEAN countries (highlighted in red in those figures) are no exception. Only two countries stand out in this regional group. Malaysia is clearly ahead of its counterparts in terms of public capital stock per person, and the percentage of firms that consider transportation and energy to be a problem is around 15 percent. In contrast, the percentage of firms identifying these areas as problematic is 25 percent in Thailand, where we observe a public capital stock per person that is 9 percentage points lower than that of Malaysia.

Figure 12: Percentage of firms identifying transportation/energy infrastructure as a major constraint to business



Source: Own elaboration, data from World Development Indicators (2014)

5. What role could the private sector play in financing new infrastructure?

The private sector's contribution to financing new public infrastructure has normally taken the form of public-private partnerships (PPPs). There is no international consensus on what constitutes a public-private partnership.⁸ Broadly speaking, PPPs refer to arrangements between the public and private sectors under which the private sector supplies infrastructure assets and infrastructure-based services that traditionally have been provided by the government (Hemming, 2006). PPPs typically do not include service contracts or turnkey construction contracts, which are categorized as public procurement projects or the privatization of utilities where there is a limited ongoing role for the public sector.⁹

A number of countries have fairly well-established PPP programs. Perhaps the best-developed program among advanced economies is the United Kingdom's Private Finance Initiative (PFI), which began in 1992. A number of other advanced OECD economies also have significant PPP programs, including Portugal and Greece. Among emerging and low-income economies, Latin American countries such as Argentina, Brazil, Chile, and Mexico were pioneers in making early and extensive use of PPPs, although countries in other regions (Indonesia and the Philippines in Asia, Bulgaria and Turkey in emerging Europe, Jordan and in Morocco in the Middle East and Northern Africa region, and South Africa and Kenya in Sub-Saharan Africa, among others) have also relied heavily on PPPs.

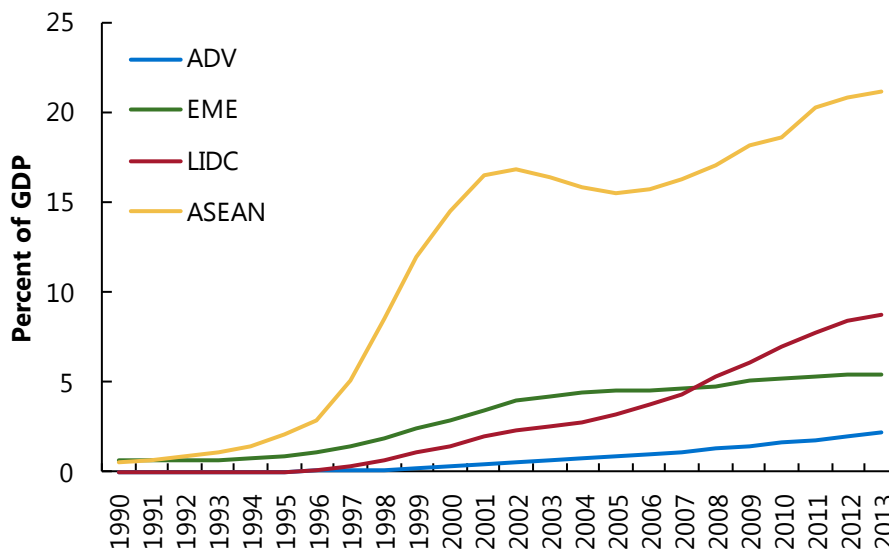
As Figure 13 shows, the average PPP capital stock has increased between 1990 and 2013 in all regions of the world. During this period, the increase has been moderate in advanced and emerging market economies, which, in 2013, had an average PPP capital stock equivalent to 2.2 and 5.2 percent of GDP, respectively. The use of this financing formula, however, has been more pronounced in low-income countries, reaching an average PPP capital stock of 8.7 percent of GDP in 2013. The slope is much steeper in the case of ASEAN countries. In only twenty years, these countries have increased their average PPP capital stock from 0.5 to 21.2 percent of GDP, driven by the extensive use of PPP formulas in Laos and

⁸ See the World Bank's PPP in Infrastructure Resource Center at: <http://ppp.worldbank.org/public-private-partnership/overview/what-are-public-private-partnerships>

⁹ A fundamental difference between PPPs (private finance) and standard public procurement (public finance) is the structure of the contracts involved. Whereas, with public finance, debt is incurred by the government, it is incurred by the private sector under a PPP. The government, in turn, has a long-term service contract with the private sector that specifies its payment obligations and other responsibilities vis-a-vis the private sector. In a few cases, the government may have no direct payment obligations (for example, for a toll road), but in most cases, it has direct obligations (for example, availability payments and shadow tolls). In addition, it usually has explicit or implicit contingent obligations.

Cambodia, followed by Malaysia and the Philippines.¹⁰ The estimated impact of growing infrastructure on private sector's activity in Asia has been positive. For example, the private investment ratio made by business corporations to expand their productive and commercial activities has been positively impacted by the improvement in electricity and roads developed in the region, and to a lesser extent by the increase in cell phone subscribers and telephone lines (IMF, 2010).

Figure 13: Average PPP capital stock, 1990-2013



Source: Own elaboration, data from European Investment Bank and World Bank (2014)

There are a number of advantages to using PPPs. For example, well-structured and well-implemented PPPs offer the prospect of efficiency gains in the construction of infrastructure assets and the provision of infrastructure-based services and, therefore, also lower the government's costs in making these services available. In addition, PPPs allow governments to avoid or defer spending on infrastructure without forgoing its benefits. This can be especially attractive to governments that are restricted in their current ability to spend but fairly unrestricted in their ability to promise future spending. For the private sector, PPPs can open up business opportunities in new areas. Despite these benefits, there are also risks involved in the use of PPPs. While PPPs can ease fiscal constraints on infrastructure investment, they can also be used to bypass spending controls, and to move public investment off budget and debt off the government balance sheet. Where this is the case, governments can be left bearing most of the risk involved in PPPs and facing potentially large fiscal costs over the medium-to-long term.

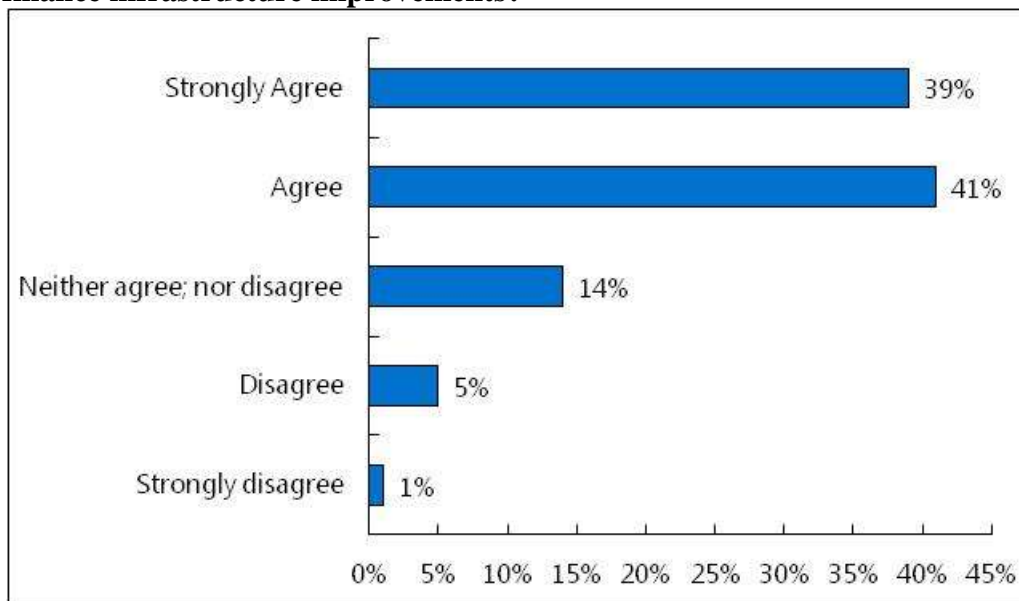
The experience of different countries suggest that economic infrastructure (for example, transport) is usually a more straightforward candidate for PPPs than is social infrastructure (for example, health care and education) for three main reasons. First, sound projects that address clear bottlenecks in infrastructure such as roads, railways, ports, power, and telecom are likely to have high economic rates of return and are therefore attractive to the private sector. Second, user charges are often both more feasible and more desirable in economic infrastructure projects. Third, economic infrastructure projects usually have a

¹⁰ Laos is an outlier in terms of average PPP capital stock with a figure equivalent to 71.8 percent of GDP in 2013. Excluding Laos, the average PPP capital stock for the ASEAN economies in 2013 would go down from 21.2 to 12.7 percent of GDP, still higher than any other region in the world.

better-developed market for bundling construction with the provision of related services (for example, construction and operation and maintenance of a toll road) than social infrastructure projects. Based on these considerations, the emphasis on using PPPs for transport, energy, and telecom infrastructure is not surprising. The latest data from the World Bank Public-Private Infrastructure Database show that in 2013, PPPs were involved in 38 percent of total new investment in telecom infrastructure, 39 percent of new energy infrastructures, and 22 percent of additional transport infrastructure (World Bank, 2014b).

While the private sector's involvement in the provision of infrastructure has been growing (especially in the sectors mentioned above), business leaders questioned by KPMG think that there is more room for working together. When confronted with the question of whether the government should work to a greater extent with the private sector to finance infrastructure improvements, 80 percent of respondents agreed (Figure 14). In a context of strong budget constraints in the public sector in many countries, it seems that public-private partnerships could be on the rise in the near future, as a unique formula to address the infrastructure needs demanded by business corporations around the world.

Figure 14: Should the government work to a greater extent with the private industry to finance infrastructure improvements?



Source: Own elaboration, data from KPMG (2009)

6. Conclusion

This article has looked at four related questions that are crucial for unlocking future business potential of corporations around the world. The main conclusions are as follows: First, we look at how much infrastructure investment is required to maintain current capital stocks. Using estimates from both international institutions and the private sector, we present evidence that a strong investment push is needed in order to maintain current capital stocks, especially in advanced economies due to the recent decline in public investment ratios. On the contrary, thanks to the recent increase in government investment registered in developing countries, the emphasis in emerging and low income economies should be on improving the efficiency of new infrastructure projects.

Second, we analyze the quality of existing infrastructure and present data showing that the improvement in the quality of infrastructure has been minimal in advanced economies between 2006 and 2014, probably due to the abovementioned decline in public investment. In

contrast, the improvement in low-income countries has been significant. The overall quality of infrastructures also improved in emerging markets economies, although at a slower pace. Within emerging economies, the improvement in the perceived quality of infrastructure in ASEAN economies has been slightly lower than the average amelioration observed in emerging market economies, and more efforts seem to be needed in order to improve the perceived quality of roads, railroads, and airports in that region.

Third, we discuss the view of the business community. Using survey data from business leaders, the article presents conclusive evidence about the growing demand among corporations for more and better infrastructure, particularly in transport and energy sectors. Corporate executives consider these types of infrastructure of crucial importance to contain their production costs, attract qualified workers, expand their businesses, and gain competitiveness. In addition, the business community thinks that more cooperation between the public and the private sector would be desirable to cope with growing demands.

In this context, we finalize the article analyzing the potential role of the private sector in financing new infrastructure investment, given ongoing public sector budget constraints. While the use of public-private partnerships has been on the rise since the early 1990s, it still accounts for less than 6 percent of average capital stock in advanced and emerging market economies. This contribution is, however, close to 9 percent in low-income countries and considerably higher (up to 21 percent) in the ASEAN region. Telecoms, electricity, and roads are the most attractive areas for PPP projects, and this is where we expect future collaboration between governments and corporations will be concentrated.

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The Potential Demand of the Development of Telecommunication Services in GMS Information Superhighway Network Project Case Study: Thailand and Lao PDR

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Abstract

In 1992, Greater Mekong Subregion (GMS) member countries in cooperation with Asian Development Bank have initiated the GMS Cooperation Program with the objective to promote the growth of trade, investment, industry and agriculture to support services, employment and enhance well-being of local people.

Telecommunication Services as a crucial mechanism to promote economic and social opportunities, therefore, needs to be developed. Telecom infrastructure must be strengthened in order to lead the GMS region to overcome domestic constraints and promote trade and investment to boost economic growth. The GMS's governments have initiated "GMS Information Superhighway Network Project" aiming to put into place a regional large-capacity backbone network connecting all six member countries, through which the users can get access to basic telecommunication services such as high-quality voice, data and Internet services as well as information services like e-commerce, e-learning and e-health.

The researcher's study on the behavior of 3,122 Thai and Lao People's Democratic Republic (Lao PDR) users along the cross border area has shown that 78.2 percent has fixed-lined telephone while up to 75.5 percent use mobile phone. The Internet usage is mainly for working and searching data while the objective of using telecom services, especially mobile phone, is for communicating. Most people used Internet at home while office is a secondary place followed by Internet café and ICT Learning Center. Internet is mostly used by people living in town, teenagers, business persons and people working in the office.

The findings of this study can reflect the basic needs of people living in the areas. The outcome of the study indicated that a high quality of telecom services along the border areas are crucial to serve the demand of the people's needs.

Keywords: GMS countries, development, telecommunication infrastructure service, Information Superhighway Network

1. Introduction

Greater Mekong Sub-region (GMS) composes of six Mekong borderland countries: Cambodia, Lao PDR, China, Myanmar, Vietnam, and Thailand. GMS is considered one of the interesting areas for international investors and the gateway to South Asia, East Asia, Southeast Asia and ASEAN countries.

GMS covers the area of 2.6 million square kilometers with the approximate 325 million people. The majority of the people live in rural areas where they lead subsistence or semi subsistence agricultural lifestyles. Given Lao PDR as an example, around 70 percent of

the population of Lao PDR lives in rural areas while in Thailand, rural areas is mainly in the north and northeastern parts.

Facing more challenges than before, GMS people are more and more experiencing rapid changes, particularly the improvements of their living standards and conditions.



Figure 1: Greater Mekong Sub-region connected border areas
Source: CAT Telecom (2005)

The Mekong countries are gradually shifting from subsistence farming to more diversified economies, and to more open, market-based systems. In parallel with this are the growing commercial relations among the six Mekong countries in terms of cross-border trade, investment, and labor mobility. Moreover, natural resources are beginning to be developed and utilized on a sub-regional basis. The rich human and natural resource endowments of the Mekong region have made it a new frontier of Asian economic growth. Indeed, the Mekong region has the potential to be one of the world's fastest growing areas. Nevertheless its population is mostly remains poor because the gross domestic product per capita is under 2 US dollars a day in most of the region so the economic growth and poverty is still widespread. The issues of poverty, building knowledge-based society, promoting the investment and expanding economic growth among GMS countries were addressed among GMS's governments. As a result, in 1992, six member countries in cooperation with Asian Development Bank (ADB) have initiated the cooperation program to promote the growth of trade, investment industry and agriculture support services, employment and enhancing well-being of local people. The integration between technology and education, and the effective use of resources need to be focused. The GMS Program was categorized into 9 sectors: agriculture, transport, telecommunications, energy, environment and natural resources management, human resources development, trade, investment, and tourism.

After the initiation, many development projects along North–South, East–West, and Southern Economic Corridors have been implemented. These projects include, for example, road networks linking all the six GMS members, the generation of electricity trade between Lao PDR and Thailand, and the agreement to facilitate cross-border movement of goods and people. As the GMS members are market-based open economies, the potential benefits from these development projects are large. Still, several issues have occurred that effect the

progress of the projects and the benefits to this region, the issues include the different levels of development and the lack of political stability in some member countries.

Since telecommunication plays a major part of development, telecommunication network infrastructure becomes a part of mechanism to facilitate development of GMS countries. The telecommunication network needs to be developed and linked all member countries along border areas. The existing infrastructure has been planned to upgrade to fiber optic lines. The work plan covers: digitizing the national network, expanding facilities, creating common standards and technology and adjusting regulations, policies and tariffs. Consequently, the Greater Mekong Sub-region Information Superhighway Network (GMS ISN) Project has been launched in November 2004 and become the core program for GMS telecommunications development.

Greater Mekong Sub-region Information Superhighway Network Project

With the aim to adapt to the rapid development space, enhance the exchanges among the GMS countries in political, economic and cultural fields, and bridge up the digital gap between GMS countries, the governments of the six countries proposed an important vision to build GMS Information Superhighway Network project through active negotiations the connection of GMS countries. The telecom carriers from the six countries participating into the panel discussion are also the members of the working group for GMS ISN project designated by the governments they represent respectively.

This project has been organized and implemented jointly by the six members involved with the aim to put into place a regional large-capacity backbone network connecting six countries, through which the users can get access to basic telecommunication services such as high-quality voice, data and Internet services as well as information services like e-commerce, e-governance, e-learning and e-health.

After launching the project in 2004 by signing of Memorandum of Understanding (MOU) by the government of GMS countries in policy level, these members have started a series of efforts. There was a signing of MOU of the Planning and Construction of GMS ISN project on 5 July 2005 by operators from 6 member countries as in operation level. In line with the study of the members as well as the consensus reached during discussion, they agreed in principle that their existing network resources shall be used as much as possible in building the GMS backbone network in order to reduce construction cost. As a result, the GMS ISN would be carried out in 4 phases:

Phase I: Planning of GMS ISN and reach the common understanding and agreement;

Phase II : Constructing of GMS ISN first step and planned ready-for-service (RFS) date for GMS ISN shall be on or before the end of 2008;

Phase III: Constructing of GMS ISN second step and planned ready-for-service date for the GMS ISN shall be on or before the end of 2010;

Phase IV: Developing all kind of services and application based on the constructed network facilities during the Phase II and Phase III.

The RFS date may be reviewed and finalized during the MOU period to take into account key factors such as technological developments and traffic demand.

Telecommunication infrastructure in GMS program is one of the mechanism to strengthen economic growth, reduced the poverty, improve the quality of life and developing other sectors in these program cooperation. In this regard, this study would like to investigate the outcome of implementing for GMS ISN project by delaying from timeframe and to accelerate the authorities concerned realize and carry on the project to be usable punctually.

The implementing of the GMS ISN project and the status of project

The GMS Information Superhighway Project costs approximately 66.21 million US dollars (CAT Telecom, 2009). Every member will be responsible for the investment and construction of the part in their own country with the guidance and coordination of the Implementation Group.

In January 2005, the members held the first working conference of the working group of GMS Information Superhighway in Kunming, Yunnan Province of China. All the parties have conducted open discussion on the cooperation intention; the range covered by this project and cooperation mechanism and has set up Working Group Committee and Subcommittee of Planning in Transitional Period. China Telecom was nominated as the first presiding company of the Working Group Committee to take the lead in carrying out the work and the Chinese research institutes (Planning Research Institute under Ministry of Information Industry (MII), Republic of China and Jiangsu Posts & Telecommunications Planning And Designing Institute Co., Ltd) were entrusted to undertake the network planning and research related to the GMS Information Superhighway project.

Based on the site inspection of the Planning Research Institute under MII and Jiangsu Posts & Telecommunications Planning And Designing Institute Co., Ltd and with the support of the Implementation Groups of the six countries, a large amount of first-hand information on the various countries, businesses, networks and future development were collected from February to April 2005 to formulate the Network Construction Plan for the GMS Information Superhighway.

The members held the second implementation group meeting on the GMS Information Superhighway in May 2005 in Bangkok, Thailand courtesy of CAT Telecom during which the various parties reached consensus on the final plan following in-depth discussions. The content of the MOU on the Cooperation on the GMS Information Superhighway was finalized on this conference and it was decided that as part of the achievements on the cooperation in the field of information and communications in the GMS, the MOU was signed during GMS Leaders' Meeting. Subsequent Steering Group and Implementation Group meetings were hosted by the six member countries on a rotational basis every 10 and 5 months, respectively.

GMS ISN project now has completed Phase I which have connected Myanmar: (1) Mae Sai - Tachilek (2) Mae Sot – Kakarei/ Lao PDR: (3) Nongkhai – VIENTIANE (4) Chiang Khong – Houayxay + Existing cross border at Mukdahan-Savannakhet and Kingdom of Cambodia: (5) Aranyapthet – Poipet.

2. Problem Statement

The implementing of GMS Information Superhighway Network Project is aimed to promote the cooperation in e-commerce, e-government, human resources development as well as network and information security between the various countries to contribute to the economic development and political, cultural and information exchanges within the sub-region. GMS-ISN is continuing on the improving significantly of transmission capacity between the different countries and the reliability and scalability of the network. A high-speed and large-capacity Internet platform will be created at the same time. The bandwidth of the Internet will be increased from the current (CAT Telecom, 2009).

Since the celebration of Completion Ceremony of Phase I of the GMS Information Superhighway Project in the 3rd GMS Summit on 31 March 2008, they are continuing in progress in Phase II which may be delayed from the work plan by financial and political problems. For example fiber connections of condemnation of the c4 (Echiyongkag - Huai Sai) will be made when building the Thai-Laos Friendship Bridge – Laos (CAT Telecom, 2009), so if they have completed negotiations to expedite the construction of this bridge will be able to take advantage of the connection. This will be useful in extending its range to

accommodate the increased volume in the future of both countries. Now a day both countries just finished the setting up the budget for constructing the bridge and it will affected the timeframe of fiber connection.

However, there still was no discussion on deployment of telecommunications infrastructure to expand development in the early stage whether human resource development, trade or investment. This may occur by the readiness and some factors of the member countries. The lack of information about potential demands of the Telecommunications Services such as; education, career, social development, poverty reduction, economic growth, basic needs may be reasons that developing telecommunication infrastructure still has no clearly direction and objective.

In this regards, drawing attention to all concerned who have responsibility to drafting the action plan of developing among member countries by using telecommunication infrastructure network to reach the GMS's goal setting, primary potential demands of Telecommunications Services for the member countries need to be investigated. The demand from each country may different. The investigation of potential demand from those countries can indicate and prioritize the criteria objective of first stage developing. Moreover, it can state to authorities concerned to push forward implementing this project to meet the target in timeframe with strong processes.

The study may lead to procedure, indicate the first needs of the people, specify the beneficial of the telecommunication service through GMS-ISN project and being a guideline to push the project give more focus on the objective and find out sources from development partners to participate in project to contribute and facilitate in infrastructure development in GMS countries. It may give some idea for next study and might be useful for government planning policy in the future.

3. Research Objectives

- 1) To determine the potential demand of development of Telecommunications Infrastructure services of GMS Information Superhighway Network (GMS-ISN) project (Study Model: Thailand and Lao PDR)
- 2) To determine the basis needs from Telecom services among GMS countries and encourage the authorities concerned to push forward and improve services to responded to the needed and demanded
- 3) To determine the potential benefits from the development of the Telecom services among GMS countries

4. Background of Telecommunications in Greater Mekong Subregion (GMS) and review the past researches

The vision of GMS program is to look into a sub-regional prosperity and improve the competitiveness of the sub-region by increasing cross-border transportation, trade and physical link sub-region by accelerating infrastructure development and to create a vertical space as concrete economic sustainability. The program wants to promote production; marketing and international cooperation connect the global economy and develop a sense involved in the same community to reduce the joint problem solving and preventing issues of social and environmental concerns and increase the role of all sectors of development, especially the private sector and local people in the telecommunication services.

Reviewing literature would include background of information about GMS program, GMS ISN project, and telecommunication industry of GMS countries as the basic information to analyze the past and current status of both countries. In addition, learning from past researches concerned whether geographic, trade and investment, population and development capabilities in the telecommunications infrastructure is also taking into account.

Telecommunication Industry Development in GMS Countries

In recent years, the ICT has played a more and more significant role in the social growth of each country as the economic globalization picks up its steps. Along with it, the information communication industry in GMS countries has also witnessed rapid growth during this time, and the six incumbent carriers in GMS have grasped the opportunity to yield fruitful results in developing the telecommunication industry.

Cambodia

In Cambodia where its market liberalization policy is phased in, there are totally 3 fixed operators to provide fixed telecommunication service and 4 mobile operators serve 750,000 subscribers. The Internet service that takes up unabated helps to boost the subscriber base to grow at an average annual rate of 6% to nearly 15,000 (CAT Telecom, 2009) in the last few years. It is predicted that such robust development momentum will continue in the next several years. (Ministry of Posts & Telecommunications of Cambodia, 2009)

China

The Chinese information industry has developed in a rapid and balanced manner, and the IT applications have been continuously promoted in the society. And the information technology sweeps over more and more areas with each passing day. To take China Telecom as an example, the revenue in 2004 reached \$19.1 billion, representing a year-on-year growth of 9.8%. The fixed telephony subscribers reached 190 million and the Internet users 34.85 million, among which broadband takes 14.73 million users. In terms of the international exchanges, China Telecom has already established a so-called three-dimensional network of world reach, accommodating international submarine cables, terrestrial cables and satellites. China Telecom, entrusted by the Chinese government, will go all out to fulfill the mission related to this project of the GMS Information Superhighway.

There are 4 telecom carriers providing basic telecom services in Laos. And 6 ISPs are available to provide the Internet service. By the end of September 2004, the fixed telephony subscribers have totaled 86,000, demonstrating a growth rate of 17%. With an annual growth rate of 100% mobile users have expanded to 250,000. Internet users have recorded 4000, with an annual growth rate of 30%. (CAT Telecom, 2009)

Lao People's Democratic Republic (Lao PDR.)

Telecommunication in Lao PDR. has fixed lines 97,768 subscribers, mobile (GSM): 2,022,133 subscribers, CDMA/WLL: 50,000 subscribers. The Internet has dial-up serve 1283 subscribers, ADSL 2820 subscribers, IP Star: 198 subscribers, Leased line: 33 subscribers. The figure 2.3, 2.4 and 2.5 are the statistic of number of telecommunication services which are increasing in Lao PDR from 2000-2008 which are growing rapidly since 2004-2008. (National Authority of Posts and Telecommunications Lao People's Democratic Republic, 2009)

Myanmar

Ministry of Posts And Telecommunications of Myanmar has already planned to upgrade the domestic telecommunication infrastructure by replacing manual or cross-bar voice switch with digital switch and analogue microwave transmission system with digital microwave system. In parallel the domestic and sub-regional basic communication networks will be established and upgraded. (Myanmar Post and Telecommunication, 2009)

Thailand

During 2003-2006, the government had introduced the Dual-Track development model which empowered the economy by increasing access to credit reducing costs and expanding opportunities. At the same time, the government puts tremendous effort to increase competitiveness of the economy by developing niche markets such as food, fashion, tourism, automobile, medical services, animation and software industries.

In 2004, the economy grew by 6.2 percent driven by high export and private investment. Inflation was moderate and the current account was in surplus. Unemployment reduced to 2 percent and more than 2 million people lifted themselves out of poverty. Financial stability resumed as NPL reduced to less than 10 percent of total banking loans, public debts and foreign debts drastically reduced and the national foreign reserves increased to 50 billion US dollars. (CAT Telecom, 2005)

Now a day the role of ICT is more influential in every field of developing in the country. Giving importance to the using of ICT development and infrastructure should be more addressed and followed up by the authorities concerned to expand telecommunication technology to all areas to strengthen development in other more.

As per information of telecommunication users subscribers and income from 2005-2008, the telecommunication in Thailand is continuously increasing. This is can point up that telecommunication is one of the key drivers of Thailand economic growth. Thailand has enjoyed the growth of the telecommunication sector to the GDP every year. (CAT Telecom, 2005)

CAT Telecom is the telecom operator in Thailand who participated in the GMS ISN project as the implementation group on behalf of Royal Thai Government has deployed altogether 16,000 km terrestrial fiber optic cables, boasting a backbone transmission network featuring large-capacity optical cables, satellite and microwave technologies. Its extensive network infrastructure includes three international switching gateways, three satellite earth stations, and also an International Internet Gateway (IIG) and a National Internet Exchange with capacity over 17 Gigabytes (Gbps) and 122 Gbps, respectively. It also holds large-capacity submarine cables outside of Thailand so as to offer various high-quality communication services to its domestic and international customers. (CAT Telecom, 2009)

Vietnam

The history of Vietnam Post and Telecommunications Group (VNPT) in Vietnam also resembles the track of the rapidly growing communications both within Vietnam and the sub-region. As a large state-run corporation in Vietnam, VNPT has developed 1 million telephone users in total by 2004. In addition, VNPT boasts 500,000 Internet users, representing a market share of 60%. The digital switch technology has been deployed all over the 64 provinces and 95% of the communities have the access to telecommunication services. The bandwidth of the domestic backbone transmission network has all been expanded up to 20G.(CAT Telecom, 2009)

To meet the requirements posed by the developing international telecommunications, China Telecom, MPT of Myanmar, CAT and VNPT cooperated with other international carriers to inaugurate South Asian terrestrial optical cables reaching 6 countries in Southeast Asia in 2001. And the Asia-Europe submarine optical cables connecting 33 countries and regions were deployed in 2003. Via the submarine and terrestrial optical cable systems and satellite, microwave and boundary communication system, which serve as auxiliary means, the six operators from 6 countries have established close partnerships and have collaborated in voice, data and Internet services. Accordingly the communication demands among

individuals, corporations and governments within the 6 countries have been successfully satisfied.

As the global and regional ICT grows, the GMS countries have promoted the telecommunication industry and related cooperation into a stage featuring sustained and rapid growth.

The accomplishment of the project will help increase the communication capacity between the various countries in the sub-region sharply. By then the transmission capacity between the different countries and the reliability and scalability of the network will be improved significantly. A high-speed and large-capacity Internet platform will be created at the same time. The bandwidth of the Internet will be increased from the current. With the provision of secure and reliable information delivery and application platform for governments, businesses and individuals, the members of the Implementation Group of the Information Superhighway Project will try to increase the access of information and communications technology, narrow the “digital divide” between developing and developed countries in the field of telecommunications. With comprehensive information and telecommunication services, the project is aimed to promote the cooperation in e-commerce, e-government, human resources development as well as network and information security between the various countries so as to contribute to the economic development and political, cultural and information exchanges within the sub-region.

Related literature

From the past research related GMS, the researcher found that the transport infrastructure both on land and water is first important part that GMS really needed to be developed because transport would facilitate trade and investment, connect all 6 countries together and it is also one of the mechanisms to push the economic growth. (Siriluk Masviriyakul, 2004). After transport was connected among GMS countries, telecom infrastructure which would be the mechanism to push forward the economic development is also needed to be connected.

GMS economies have made a number of changes in their trade policy regimes and drastically reduced their tariff rates since the mid-1990s. (Economic and Social Commission for Asia and the Pacific: ESCAP, 2004) The current comparative advantage of these countries is confined to commodities such as garments, leather goods, fresh food and wood products. Also, there is a need for these countries to rationalize their industrial structure and diversify their product basket. Trade and investment policies are required that would facilitate the expansion of the production base in these countries. The role of new technology in fostering mutually beneficial cooperation among GMS countries, diversifying the export basket and export destination, and sustaining comparative advantages become mechanism of trade and investment to expand the economic growth.

Moreover, it is informed that Information and Communication Technologies (ICTs) is not just only also offer ample opportunities for all the GMS economies. Improved access to ICTs at affordable prices could help the GMS economies to explore new markets through e-commerce, to reduce information costs and to better harness ICTs for development. At the same time, producing or increasing the production of ICT goods and services could create new employment opportunities, induce foreign direct investment and increase export earnings.

Besides, the number of potential challenges and opportunities in entrepreneurial perspectives towards participation of the micro and SMEs in the border trade development, and opportunities for growth. (Makha Khittasangka, Robert Doyle, Manop Pasitwilaitam, and Albert Lisec, 2006) Due to rapid changes in the goods traded and an increasing nature of competitiveness among GMS countries, SMEs are less likely to have experience in a trade

link in the niche market. This may require more in the way of public provision of quite specific kinds of technological information and support that will be a challenge to supply on a cost-effective basis to improve packaging and market penetration.

Anyhow, social development is one of the issue need to be discuss and take into account. Solving the poverty problem, the government has to make economic growth to let a poor person can assist and find out opportunities and help themselves. These measures do not help the poor rely on themselves if the government cannot allocate budget to these projects. Then the people will get back into poverty as usual. (The journal of Asia Studies by Centre of Asian Studies Faculty of Social Sciences Chiang Mai University)

The Ministry of Information and Communication Technology initiated ICT Corridor project to study the background and basic information from Lao PDR, Thailand, and Vietnam to prepare setting out the policy to cooperate on ICT issues with countries in the Mae Khong region. (Khonkhen University, 2008)

The objectives are to create a framework for cross-national cooperation through the adoption of ICTs to act as a driver of economic growth and especially of high value-added economic activities for all three-member countries. Moreover, the project aimed to create research, education network, and a virtual community of learning and knowledge. The strength and weakness of those three countries had potential in developing the telecommunication infrastructure and networking to drive the economic growth among GMS by using the GMS Information Superhighway Network Project. It will affect directly to private sector and people in trade, investment especially in logistic and ICT industries and also in social development which they need all support from public sector or government to push forward to reach these goals.

During the 4th GMS Summit meeting on December 2011 held in Nye Pyi Daw, Republic of the Union of Myanmar, Memorandum of Understanding on the Joint Cooperation in Further Accelerating the Construction of the Information Superhighway and It's Application in GMS has been signed. (ADB, 2011) The objective of MoU is to promote ICT applications for development to encourage the growth and development of this subregion, especially in rural areas to bridge the digital divide by using e-Learning as a tool to contribute to expand the growth of economic, reduce poverty problem, and provide more opportunities and incomes. Moreover, e-Commerce would also be the mechanism to reach the industrial's demands.

In the mean while, GMS enlarged the activities in the new areas of cooperation, beside 9 sectors from the first stage. Multisectoral and cross sectoral were initiated and focused on Special Economic Zone (SEZ), development of Cross-border Economic Zone (CBEZ), (ADB, 2013) and transport and trade facilitation along GMS corridor.

From the above statement, it indicated that the importance and necessity of ICT usage to drive economic growth, improve the quality of people's life, and ensure the social development sustainability. Therefore, the new GMS Economic Program Strategic Framework (GMS-SF) (ADB, 2013) was approved at the 4th GMS Summit meeting in December 2011 and translated into operation segment called "Regional Investment Framework" or RIF (ADB, 2013) which focused on investment and technical assistance project.

The information from all past research and related article had assured that the strongly infrastructure both in transport and telecommunications is a very important tool to drive economic growth; to solve the poverty problem; and social environment. Therefore pushing the implementing GMS ISN project can help the other related projects in other sector improve and proceed through the successful.

5. Conceptual Framework

From the research objectives and the problem statement conducted in the introduction above, the conceptual framework is developed and hypothesis was created to test the relationship of variable. The research defined the variables demands classify in each sector based on demographic, economic, socio-cultural, and technological as the independent variable to investigate the relation with potential demand of the development of telecom services infrastructure in GMS Information Superhighway Network project, which is dependent variable. The figure 2 is the design if conceptual framework and hypothesis testing as follows;

Independent Variables

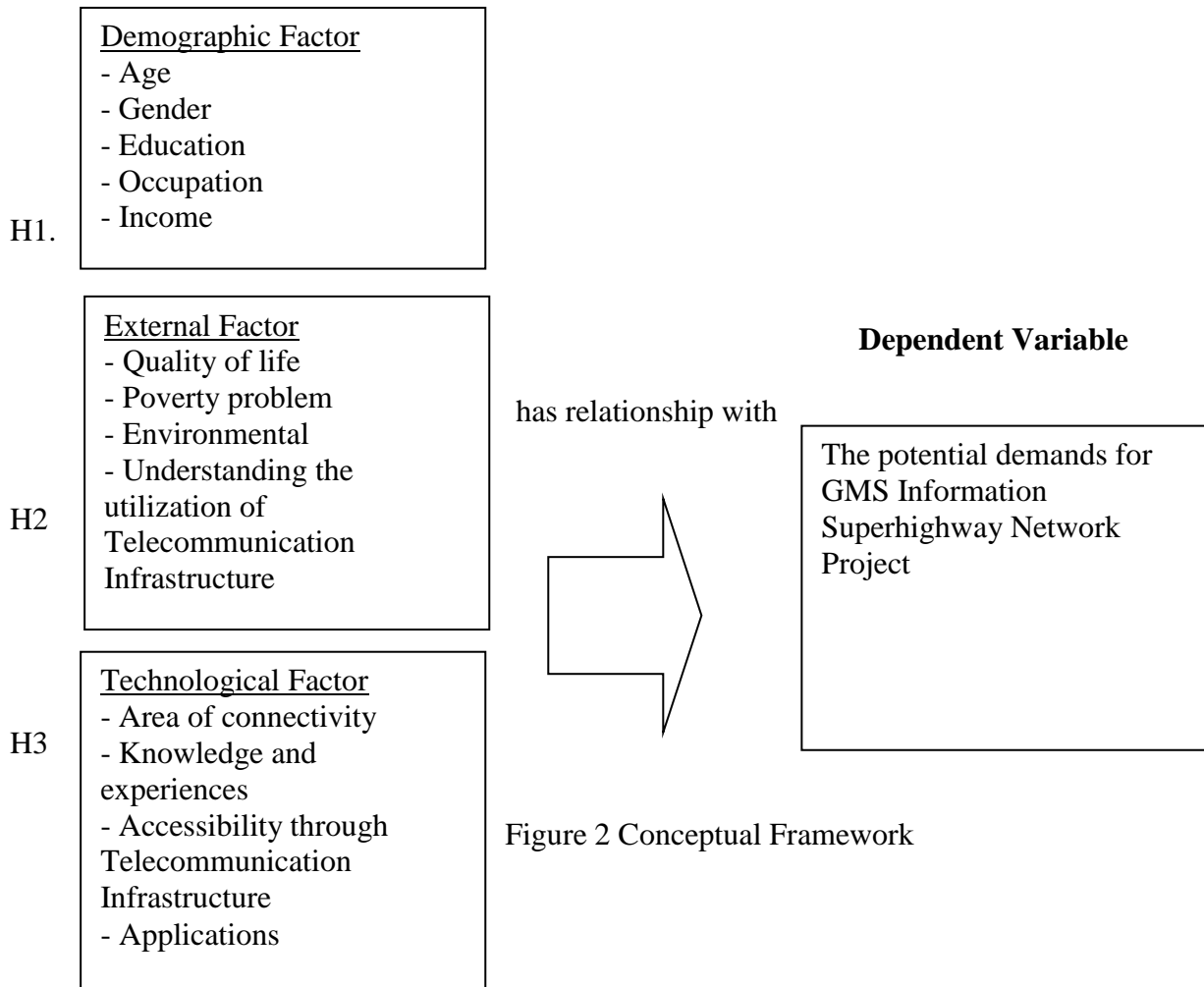


Figure 2 Conceptual Framework

Hypothesis Testing

H1. There is a significant relationship between the potential demands in the development of Telecommunication services infrastructure in GMS-ISN and demographic Factors which are age, gender, education, occupation, and income.

H2. The external factors, which are quality of life, poverty problem, environmental, understanding the utilization of Telecommunication Infrastructure, has a significant relationship with the potential demand of the development of Telecommunication infrastructure services of GMS-ISN.

H3. The technological factors, which are area of connectivity, knowledge and experiences, accessibility through Telecommunication Infrastructure, has a significant relationship with the potential demands of the development of Telecommunication infrastructure services of GMS-ISN.

6. Scope of the Study

This study will be specifically carried out the basic needs and potential demands of GMS countries, in study model: Thailand and Lao PDR, which may effect to the success of GMS-ISN project in timeframe. The study will focus on the potential demands of Telecommunications Services between each cross border area of Thai and Lao PDR which are the border area that Thai and Lao PDR have infrastructure network connection. There are 4 areas together; Nongkhai-Vientiane, Mukdahan-Savannakhet, Chongmek-Wangtao, and Chiengkong- Houayxay. Beside the data collecting from telecom operators, government sectors and other authorities concerned, the survey of the telecom economic and in-depth interview with people in each sector, who have directly affect to the telecom services along the cross border area, is will include in this study to analyze and compare the similarity, differentiation, needs, readiness of both countries.

Many occupations in each sector along the cross border Thai-Lao PDR will be the sources of why we need to push forward the GMS-ISN project to the success rapidly and sustainability. Data collecting from both open-ended questionnaires and in-depth interviews will be analyzed by content analysis to indicate the primary needs of consumers in study areas.

7. Research Methodology

The objective of the study to find out the potential demands and basic needs of Telecommunication services among GMS countries especially people lived along the border Thai and Lao PDR. as case study. The data from the related researches and information are very important while the basic information from Telecommunications services users need to be collected both quantitative and qualitative data including insights information by interviewing the people along the borders also including people living in the city in each categories of occupation to average the number of population in 2 countries in each part of cross border connection. According to the conceptual framework, the study is divided into two methodologies: which are

1) Quantitative Research Data Collection to find Demographic characteristic, ICT accessories and using ICT Infrastructure in daily life, behavior of using Telecommunications Services in daily life and also some comments or suggestions of the community. The questionnaire was divided to 4 parts which are:

- Demographic characteristic
- ICT accessories and using ICT Infrastructure in daily life.
- Behavior of using Telecommunications Services in daily life.
- Comments or suggestions

The questionnaire designed to collect data in order to analysis results and then presented as tables, complete with description. The questionnaire designed to collect data in order to analyze the results and present as tables, complete with description in 4 parts:

Part 1: Questionnaire was designed to be multiple choices and conducted to collect data about demographic characteristic which is gender, age, education, occupation, and income.

Part 2: Questionnaire concerned about socio-economic factor which asked for ICT accessories and using ICT Infrastructure in daily life. Close-ended question was designed to use in this part to help respondents to answer quicker and more comfortable to do survey.

Part 3: Questionnaire involved with technological factor asked for behavior of using Telecommunications Services in daily life. The questions were conducted to multiple choices, close-ended question, and rating scale.

Part 4: Open-ended questions were used to collect additional comments or suggestions from respondents from both countries.

The defining of the sample size was applied by the Taro Yamane formula (1967). The calculation of sample size and the formula for the size of the sample population according to a note of confidence that 95% error not exceeding 5% of the formula by using convenience sampling and sample query set which is the Non-probability as below.

$$n = \frac{N}{1 + N (E)^2}$$

n = sample size.

N = population of sample

E = error of sampling in this study is 0.05 level of confidence 95 percent.

(Yamane, T. 1967. Elementary Sampling Theory, USA: Prentice Hall)

The questionnaires have been distributed to authorities concerned in both government sector and private sector and people living at cross border area both in Thai and Lao PDR to cover the basic needs, barrier, and current moderating in Chiangkhong, Nong Khai, Mukdaharn, and Chongmek in Ubonratchathani province same as in Huayxai, Vientiane, Savannakhet, and Wangtao in Jampasak.

The secondary data were collected from the relevant documents, books, journals, internet, report from the meeting, previous research, conference which involve in literature review, related concepts and it has to get clear a problem statements of the topic of study.

2) Qualitative Research

The primary data was from in-depth interview with the personnel involved the GMS program from public sector, private sector, and people living in the study areas included students, teachers, doctors, merchants, and agriculturist and some other carriers concerned. Purpose to study more basic needs and opinion about telecom services and learned their consumer behavior. We would have these views in terms of damage or issues concerned to this matter. The interviewing of some organization concerned and sector had been through telephone, e-mail, and discussion views during the study visit in Lao PDR. The information from an interview compiled, analyzed and criticized with the information from quantitative research.

The population and sample size of this study from public and private sector and other concerned agencies involved with the project about 20 persons all together in Thailand and Lao PDR. The interview defined the questions concerned with conceptual framework also

answered the problem statement. The interview was more discussion and asking for some point of views as they might not be able to go in details as per political issues. To avoid this mentioned problem in getting information from both countries, Royal Thai Embassy also kindly provided some sources, guidance and facilitated in terms of giving information and coordinated in asking for permission letter for an interview in some areas of Lao PDR.

All data from interviews would have been analyzed individually to identify and consistent theme. The descriptive approach has been used mainly in the qualitative analysis technique. It is used to describe the basic features of the data in the study which collected from the interviewing and secondary data. The descriptive statistics including means, frequency distribution, cross-tabulation and percentage has been applied to describe the personal information variables.

The researcher gathered information about updating information of the project, the difficulty of pushing forward, plan of action and way forward or the progress of GMS ISN project from the relevant documents, books, journals, internet, annual report, report of the meetings and conferences concerned both national and international level, previous researches which involved in literature review, related concepts and involved with problem statements of the topic of study.

The result from both methodologies would be analyzed and compared between 4 points of cross border areas of Thailand and Lao PDR to test hypotheses wherever possible to answer the research questions, also content analysis included in the method to finalize to the research.

8. Result and Discussion

The study of “The potential demand of development of Telecommunication Infrastructure services of GMS Information Superhighway Network (GMS-ISN) project: Case Study of Thailand and Lao PDR.” aims to analyze general information pertaining to residents of Chiangkong (Chiang Rai), Nongkhai, Mukdaharn, Chongmek where are in Thailand while Huayxai, Vientiane, Savannakhet, Wangtao (Pakse) in Lao PDR– including gender, age, education, occupation, and income together with the ICT accessories, ICT usage and behavior of users in daily life in order to indicate the needs and expectations also to compare differential of both countries to the potential demand of the development of telecom services of GMS-ISN. Additionally, the study seeks to observe the connection between said information and various factors to lead to the telecom services development to designate the beneficial of ICT usage, encourage and point out the awareness of all agencies concerned. The study covers a sample group of 3,122 informative residents above.

The sample group consists of 3,122 residents of Thailand which conduct to Chiangkong (Chiang Rai), Nongkhai, Mukdaharn, Chongmek while Lao PDR determined to Huayxai, Vientiane, Savannakhet, Wangtao (Pakse). From the study, 51.25% of respondents were male, while 48.75% were female. The majority of people are students (52%) followed by working people (46.4%) which was determined as business owner (15.8%), employees of private company (15.2%), government or state enterprise officer (13.2 %), laborer or worker (2.2%). The minority of the population distributed by occupation is housewife and unemployed at 1.5%.

The research also determine the other demographic characteristic which are education, occupation, and income and primary data had been analyzed to majority of population had Bachelor Degree university (56.7%), high school education (16.5%, and 10.1%), followed by primary school (6.8 %), higher than Bachelor Degree (4.9%), diploma certificate (3.6%) and undergraduated (1.3%) by ordered. While majority of population had no income as students (53.2%), populations had income at 6,000-9,000 baht become the secondary of the group. (17.5%), followed by income at 10,000-15,000 baht (13.5%), income at 15,000-

19,000 baht (7.7%), income less than 5,000 baht (3.7%). The last two minority of the population distributed by income are 19,000-25,000 baht (2.4%) and over than 25,000 baht (2.1%).

In terms of investigate of ICT accessories owning and using ICT Infrastructure in daily life in the study area has fixed-lined phone 78.2 percentages. The result, on the other hand, found that up to 75.5 percentages of people in those areas mostly use mobile phone.

Using ICT or involvement in which most of the respondents used Internet at their home with the percentages of almost 100 in every study areas. Offices would be secondary place and followed by Internet café and ICT Learning Center. Others place with wireless LAN coverage, and residences of acquaintances would be the target places of using Internet. Internet usage is done most frequently for people living in town, teenage, business persons and working people in the office.

The consumer behavior of the telecom services or ICT usage in daily life which have been categorized to accessing to the Internet, information receiving from Internet is better and easier from other sources, financial transaction usage, and respondents' ICT usage in daily life. From the primary data and processed, researched found that not only demographic characteristic would affect to the ICT usage, but behavior of users also is the factor of telecom services usage both mobile phone and computer. Besides the mentions factors above, the areas of using ICT services are also impact to the behavior of users. Also the objective of using telecom services especially mobile phone was to communicate.

From the questionnaire, respondents agreed that mobile phone is more important for working than fix line telephone because there is more comfortable even mostly of respondents has fix line telephone at home and the objective of mobile phone users mostly is communication. Differentiation with the Internet access, the researcher found that mostly of respondents use for entertaining and followed by working and searching information.

Regarding the part of service satisfaction in questionnaire, it shows that most respondents were highly agreed with the ICT competency influenced to the study and work in their area as the number of highly percentage show at 81.42. Also respondents agreed with the ICT or telecom service can earn benefit from activities or products in their local area. While the satisfaction of the telecom services was at 59.58 percentages. Moreover, new telecom technologies would not affected to their study or working. However, respondents disagreed with the access to Internet at home for studying or working as the percentages over than 50. (59.77%)

Hypothesis had been tested for 3 factors which are demographic (age, gender, education, occupation and income), external (quality of life, poverty problem, environmental, and understanding the utilization of Telecommunication Infrastructure), and technological factor (area of connectivity, knowledge and experiences, accessibility through Telecommunication Infrastructure) were significantly correlated to the potential demand in the development of Telecommunications Infrastructure services between Thailand and Lao PDR statistically significant at the 0.05 level.

In additional, from T-Test analysis researcher found that there is potential demand in the development of telecom infrastructure services in both Thailand and Lao PDR., which not different. (Sig. = 0.397 > 0.05)

After the primacy data processed, the researcher applied content analysis on the information received from in-depth interview together with qualitative data, researcher found that the number of frequencies of the words/ phrases which appeared in the documents/ articles and number of respondents of the questionnaires survey are pointed out to the mainly problem of the users which are stated as quality of servicers and the high cost of services in both Thai and Lao PDR.

The information and ICT usage, policy, influencing of ICT in the areas of study

The information was collected from a series of interviewed with selected key persons who were willing to be interviewed. The first interviewed person was Nongkhai Provincial Governor's Office. The interviewed about ICT usage, telecom service in Nongkhai especially in the office. The volume of trade and investment of Thai investors in Lao PDR., the cost and quality of telecom services comparing between Thai and Lao PDR., which can be summarized as follows:

1. In the government agencies, most use TOT network which often has many problems such as slow and system down.

2. Fixed line in Lao is cheaper than Thai but Internet is still expensive. Businessman will buy Internet from Thai. Fixed lines phone or telephone at home and public phone still use prepaid system called win phone without telephone rental cost

3. Connecting mobile network with Lao without changing SIM card or having Roaming Service in cheaper price, would help in reducing cost.

4. Lao P.D.R. has opened country, policy and political to attract investor. Nongkhai – Vientiane is very crowded. There are transport traffic more over than 10000 per day and in 2015 will have high speed train Nongkhai-Vientiane-Khunming then the traffic will more crowded than currently which is the significance of the expanding of the economic development.

5. The preparing of Language in National Lao University also other important languages in sub-region such as Vietnamese, Chinese even French to support workers and investors in the future.

The second interviewee was Local Officer, Chiangkhong District. The information received was about working experiences, working system with ICT as of a tool to complete the target, custom clearance procedure as a border district, opinions about importance of ICT usage. Summary of the information collected follows:

1. Statistically trade and investment in Chiangkhong from last 3-4 years before the bridge construction, economic flat. After the Friendship Bridge started, the number of shops, mobile shops, Internet café, retail shops even transport like train increased.

2. Government tried to educate people about routing R3A and coming of AEC including preparing lessons in Chinese and English language for students. Because in the future, tourism and hotel management will grow in this area after the bridge construction completes.

3. Internet café, guesthouses, hotels mostly use TOT because they choose expensive promotions over offices or government. ICT usage in the government is very rare. The GSM signal is normal but DTAC faces system outages more often, sometimes for the whole day.

TOT Internet changed to promote WIFI but still has problems with speech and system outages. LAN line system is also slow.

4. Local government of Chiangkong has prepared for tourism and circulation of rapid economic growth. It would not only expand and increase the income in Chiangkong before people or tourists will travel to Lao but also brings social problems, drugs, prostitution, and it is easy to become a center of illicit entertainment. Identity, culture, way of life may become obscured if these problems are allowed to flourish.

5. People in Chiangkong hardly accept technology. They use mobile phones only for communication and do not show interest in how technology can improve their lives. Helping them to understand and build confidence in how will technology can improve their livelihood through education, is needed and should become a more important role for government.

The third interviewee was from Department of Planning and Cooperation, Ministry of Posts and Telecommunications of Lao P.D.R. The information was about Telecom services in Lao, cost of telecom services, Government Telecom policy and opinion about GSM-ISN project. Summary of the information collected follows:

1. Mobile phone signal in Lao was connected along the distance from North to South and elsewhere because the policy of the Lao's Government mentioned people have to access and connect by mobile phone everywhere every time. Now Vientiane starts to use 4G but only around the city center covered by the signal. People living out of town use mobile phones only for conversation, they do not use for Internet access. Government also thinks about the needs of people in each area how to serve people's demands in each area and meet their target.

2. Internet use at home is now 3G with wireless and LAN options. Firstly, customers of ETL and Beeline will use wireless. Now Unitel and M-phone started to offer this service, so residents can choose 3G by using USB cards.

3. Lao Government planned to use ICT for e-Learning which has started together with Ministry of Education which will start to set up the e-Learning in the University. There is the center of English and computer learning in the National Lao University. Government also looks beyond the needs of students and importance of ICT in schools around Vientiane. There would be support policy in the future.

4. Internet Café in Huayxai a much higher price than Vientiane which Government tried hard to consider price competition in the telecom sector. Actually, cost of fiber optic in which operators invested was very high. It is difficult for them to drop the price. In Lao, the amount of users is low so the government encourages utilization of ICT or Telecom by others people, foreigners, investors to balance the demand and supply or cost and benefit of operators and investors. This condition has to be beyond the benefit of people or users in country.

5. The GMS infrastructure is ready, but operators still need to negotiate transit pricing. GMS countries should start with pilot project such as e-Learning as Thailand already proposed in the GMS TELSOM in China. CAT Telecom can propose to 5 operators of member countries and test the system. If infrastructure is ready, then the full project can start.

GMS-ISN lacks promotion and public relations in ASEAN. There should be some information about what they are doing in GMS-ISN, how can it benefit people in the member countries, how the people can use ICT. Marketing is needed to attract people and it also can encourage government and private sectors to push forward GMS-ISN to meet the target.

The researcher applied content analysis on the information received from in-depth interview with qualitative data, the component analysis and classification of data, and also from the Mid-Term Review of the 10 year GMS strategic Framework 2002-2012 (ADB, 2007, page 17), researcher found that the number of frequencies of the words/ phrases which appeared in the documents/ articles and number of respondents of the questionnaires survey are pointed out to the mainly problem of the users which are stated as quality of services and the expensiveness of cost of services both Thai and Lao P.D.R.

Followed with factors or consumer behaviors which become minor problems affected to uses and agencies concerned even public and private sector also academic. Data were collected was classified to the benefit developing telecom service in GMS-ISN as mentioned in the statement from the respondents, documents concerned such as sociological and economic development, facilitating trade and investment, high penetration of users and also reducing poverty for GMS region. In this regards, it give clear picture that potential demand for developing telecom services in GMS-ISN needed to be mentioned and move forward at the earliest opportunity.

Moreover, researcher reviewed the context about the socio-economic development plan of Lao P.D.R. year 2008-2009, the telecommunication network had been expanded in the rural and urban areas, and by end of 2008-2009, it would reached 70 percentages of total households. The fiber optic system billion Kip had been expanded by 3,000 kilometers and generated government revenues of 1,600 or increased 24 percentages compared to year 2007. (Ministry of Planning and Investment, Vientiane Capital, 2008, page 19)

National policy on Telecommunication, Information Technology had been endorsed and continued providing e-Services re-revised the Decree on e-Commerce, installing WIMAX system to establish e-Governance. (Ministry of Planning and Investment, Vientiane Capital, 2008, page 21)

The researcher found from the study that the major of telecom services used is mobile phone followed by Internet and the objective of used is communicating. Also there is higher potential demand in using telecom services in the near future for business, education and mostly in facilitating trade and investment among GMS countries. Encouraging ICT using also involved with infrastructure cover areas of users following with the cost of services; Internet pricing, Telecommunication service pricing etc. One of challenge of this research is accessibility of people and community in the area of using ICT and Telecom because there is both Thai and Lao PDR followed with building trust and knowledge based reading Telecommunication and understating of ICT utilization in their areas. It is very difficult to generate an idea of how ICT make their life better, in the meanwhile, there also has risk and has threats which they have to learn how to protect them from those problems.

9. Suggestion for further research and Recommendation

Nevertheless, there also have some suggestions for the further research. Firstly, this study designed various variables base on demographic variable, socioeconomic variable, and technological variable. It is too wide to specific independent variable. Then next research should design independent variable focus on consumer behavior to study behavior, places, and purposes of using, how often of using ICT or Telecommunication etc.

Secondly, scoping down the sample side of the questionnaires and the areas of study to be more narrow and differs from this research also difference sectors including the in-depth interview is needed. The result from this research should be addressed in the questionnaires and raise up to be part of creating the Hypothesis testing and use other appropriate tools or mechanism to analyze and study.

Thirdly, the next research should use a regression analysis method by using same the sample side in this research to test the result and find the statistical significant and compare with the result of the T-Test analysis.

Finally, the GMS ISN project is very important and useful for the development of economies; reduce poverty problem, social development and quality of life for people in the sub-region. Government should realize these messages and promote awareness of the GMS ISN project to related government agencies, regulator, private sector, academic sector and also public sector. The government should support the project seriously and continuously by discussion with authority concerned for the next step of implementing application in the network. Finding solutions for the project can implement practical and beneficial to the public and all sectors to achieve the goal of the GMS.

10. Conclusions

The purposes of this study would like to identify the potential demand of development of Telecommunication Infrastructure services of GMS Information Superhighway Network (GMS-ISN) project: Case Study of Thailand and Lao PDR.” Aiming to analyze general information pertaining to residents of Chiangkong, Nongkhai, Mukdaharn, Chongmek where are in Thailand while Huayxai, Vientiane, Savannakhet, Wangtao – including gender, age, education, occupation, and income together with the ICT accessories, ICT usage and behavior of users in daily life in order to indicate the needs and expectations also to compare differential of both countries to the potential demand of the development of telecom services of GMS-ISN. Additionally, the study seeks to observe the connection between said

information and various factors to lead to the telecom services development to designate the beneficial of ICT usage and encourage and point out the awareness to the agencies concerned. The study covers a sample group of 3,122 informative residents while also making observations on these success factors. The result described statistical of demographic factors, External Factor, and Technological Factor has relationship with the potential demands for GMS-ISN project.

Moreover, it was indicated that telecom service is the basic needs of people who living in the cross border areas same as the people living in town especially mobile phone. The percentages and the number from the research proved that Telecom service becomes a mechanism of the education, economic, and social development. In this connection, it would be benefited them a lot if telecom services has been developed seriously. We could not refused that there is high demand of ICT usage in both countries, while the quality of Telecom Services still was not satisfied to the users in the areas of the study. In the future, technologies will become a part of our life and work and demanding is become more increasingly then high quality of infrastructure is very needed to be considered.

Basically, policy maker, regulators, private sectors and all agencies concerned should take awareness on the needs of people in local areas and play a central role in ICT development by encouraging ICT using and developing ICT Infrastructure. ICT industry and investment also really need to be considered to upgrade the infrastructure to high speed network and high quality to cope the demand of the ICT usage in the near future.

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Developing Adaptability for New Competitive Advantage

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Abstract

This paper elaborates on the four dimensions of the Reeves and Deimler adaptability theoretical framework (2011) to illustrate how environmental change upended the traditional business model that the Spanish footwear companies were used to. It then explains how Spanish small and medium-sized enterprises (SMEs) formulated strategies to renew the industrial structure and strengthen their adaptive capabilities to gain new competitive advantage. The paper analyzes the restructuring of the industry from a fragmented traditional model to an adaptive model in order to better respond to rapid environmental change and gain new competitive advantage.

1. Introduction

Spain is immersed in a prolonged recession. After almost 15 years of above average GDP growth, the Spanish economy began to slow in late 2007 and entered into a recession in the second quarter of 2008 (OECD, 2012; Pettinger, 2012; World Bank, 2012). Spain is still facing negative GDP growth, low consumption rates, and a high level of unemployment (Ortega and Peñalosa, 2012).

While the performance of the economy has been disappointing, and most industries have been struggling, the Spanish footwear industry has been one of the very few industries in Spain that has managed to stand out: “No jobs were lost, and the numbers of companies and production levels were maintained; it experienced significant growth based on foreign trade” (FICE, 2011). As shown in Table 1, in 2011, employment, production, and exports stabilized at 2010 levels and exports increased by 8.6% (FICE, 2012).

As for 2012, the footwear industry has been significantly affected by the crisis, especially domestic sales, which have experienced a decrease of 25% (FICE, 2013). Manufacturing businesses reduced their margins in order to maintain their market share, however, and estimates indicate that there have been no job losses and that the number of manufacturers and the level of production have been stable. Exports have experienced a 6% increase in volume and a 2% increase in value, and, for a second consecutive year, imports have decreased (FICE, 2013; World Footwear Yearbook, 2014). Also, it is important to note that the footwear industry has not lost its competitive advantage in relation to its European direct competitors and, due to its export numbers, it is resisting the recession. The industry is growing in Asia, Russia and the US, as these markets have been less impacted by the crisis; in addition, these are markets where Spanish footwear is appreciated for its high quality and design. In 2013, Spanish footwear exports reached a record value of 2 286 million euros, a 9.1% growth from 2012 (World Footwear, 2014).

Table 1 Spanish Footwear Statistics 1999-2011

Source: FICE, Spanish Footwear Annual Reports

<u>Year</u>	<u>Employment</u> (person)	<u>Production</u> (€bn)	<u>Domestic</u> (€bn)	<u>Export</u> (€bn)	<u>Import</u> (€bn)
1999	45,883	2.9594	1.6737	1.8534	0.5677
2000	47,030	3.0333	1.7424	1.9609	0.6699
2001	48,122	3.1576	1.7938	2.1029	0.7390
2002	46,309	3.1204	1.8315	2.1186	0.8297
2003	44,453	2.7403	1.8293	1.9199	1.0089
2004	40,771	2.4354	1.8267	1.7452	1.1456
2005	35,935	2.1514	1.8908	1.6473	1.3868
2006	33,521	2.0590	1.978	1.7183	1.6373
2007	30,715	1.9055	1.765	1.8926	1.7521
2008	29,056	1.7656	1.8234	1.8005	1.8583
2009	27,341	1.6460	1.7096	1.6955	1.7591
2010	22,858	1.5530	1.8297	1.8486	2.1254
2011	22,896	1.5724	1.7707	2.0073	2.2380
2012	24,263	1.5926	1.8220	2.0500	2.0140

The upturn in the Spanish footwear industry may be light at the end of the tunnel of the Spanish economic recovery. Our research seeks to determine which challenges the industry faced, and how the industry managed to stop the bleeding and turn around its decade-long free fall.

Reeves and Deimler (2011) developed a theoretical framework for assessing the capacity of organizations to adapt to the new business environment of globalization, innovative technologies, and increased transparency. This paper intends to use this framework to create a business model that illustrates how environmental change upended the traditional business model that Spanish footwear companies were used to. The findings of the transformation of Spanish footwear sector may have significant implications for other sectors to fight for economic recovery in Spain and as well as in the rest of the world.

2. The Adaptability Model for Competitive Advantage

There is no single definition of competitive advantage. Generally speaking, competitive advantage is the advantage that a firm has over its competitors, allowing it to generate greater sales or margins and/or retain more customers than its competition. Similarly, there is no common agreement on the sources of this advantage. Reviewing the strategy literature we found three prominent research streams: the first is the industry structure view (Porter, 1980); the second is the resource-based view (Barney, 1991); and the third is the relational view (Dyer & Singh, 1998).

According to the industry structure view, the source of competitive advantage is found in business activities and activity systems within an industry. Porter identifies five forces (bargaining power of buyers, entry barriers, rivalry, substitutes and bargaining power of suppliers) that determine the intensity of competition and the profitability of an industry. Thus, the objective of corporate strategy is to manage these forces in such a way that the corporation will gain advantage over its competitors (Porter, 1985). On the other hand, the resource-based view seeks the sources of competitive advantage from within the organization, analyzing its strengths and weaknesses. According to this view, companies can gain competitive advantage if they able to achieve superior resources and capabilities and these are valuable, rare, inimitable and non- substitutable. Thus the objective is to identify, develop and

deploying key resources to maximize returns (Fahy and Smithee, 1999). Finally, the relational view finds the source of competitive advantage in the collaboration between firms and more specific, it identifies four sources of inter-organizational competitive advantage: relation-specific assets, knowledge sharing routines, complementary resources / abilities and effective governance (Dyer and Hatch, 2006).

Technological revolution and increasing globalization and competition have produced a new competitive landscape. One single approach to seeking competitive advantage is not enough; industry borders are becoming blurrier and more fluid, so Porter's model by itself is not the solution. The three main streams remain important and the approach should be integrative and complementary. As organizations face continuous uncertainty, ambiguity and strategic discontinuities in this volatile and turbulent context, responsiveness to environmental changes has become a vital success factor for companies (Homburg, Grozdanovic & Klarmann, 2007). Thus, in the twenty-first century, adaptability has become a key factor in achieving competitive advantage (Reeves and Deimler, 2011).

Adaptive capability or adaptability is considered as a new competitive capability in response to the uncertainty of the new century. However, the concepts of adaptation and adaptability can be traced back to Darwin's natural selection and natural selection and adaptation, a simple concept but it is perhaps the most important idea in biology (Williams, 1966). This concept was further developed by Ludwig von Bertalanffy (1972), a biologist, into a general system theory, which is a set of dynamic elements maintaining integrity via mutual interactions.

The concept of organizational adaptation, which is rooted in contingency theory and emerged in the early 1960s, addresses the organization–environment interface and the fit between an organization's external environment and its internal organizational structure (Burns and Stalker, 1961). In other words, adaptability is the organization's capacity for internal change in response to external conditions (Denison and Mishra, 1995). Miles, Snow, Meyer and Coleman (1978) sustained that organizational adaptation is a topic that has received only limited and fragmented theoretical treatment. They further argue that any attempt to examine organizational adaptation is difficult. Based on their industrial studies, they developed a theoretical framework that deals with alternative ways in which organizations define their product-market domains (strategy) and construct mechanisms (structures and processes) to pursue these strategies.

In the literature of strategic theory, adaptability is the capacity to adjust to changes in the external environment so as to maintain organizational viability (Child, 1972; Miles, Snow, Meyer & Coleman, 1978). Angle and Perry (1981) say that adaptability resides in different abilities: the ability to anticipate problems, the ability to keep up with changes and new ways of doing things, the ability to adjust to changes quickly, and the ability to cope with uncertainty and crisis.

In order to adapt, in a context of environmental turbulence, researchers indicate that firms select particular organizational structures to increase adaptability (Miller, 1987). The literature argues that adaptability to unpredictability is revealed in more "organic" structures, characterized by less formal control and greater integration and decentralization (Miller and Dröge, 1986).

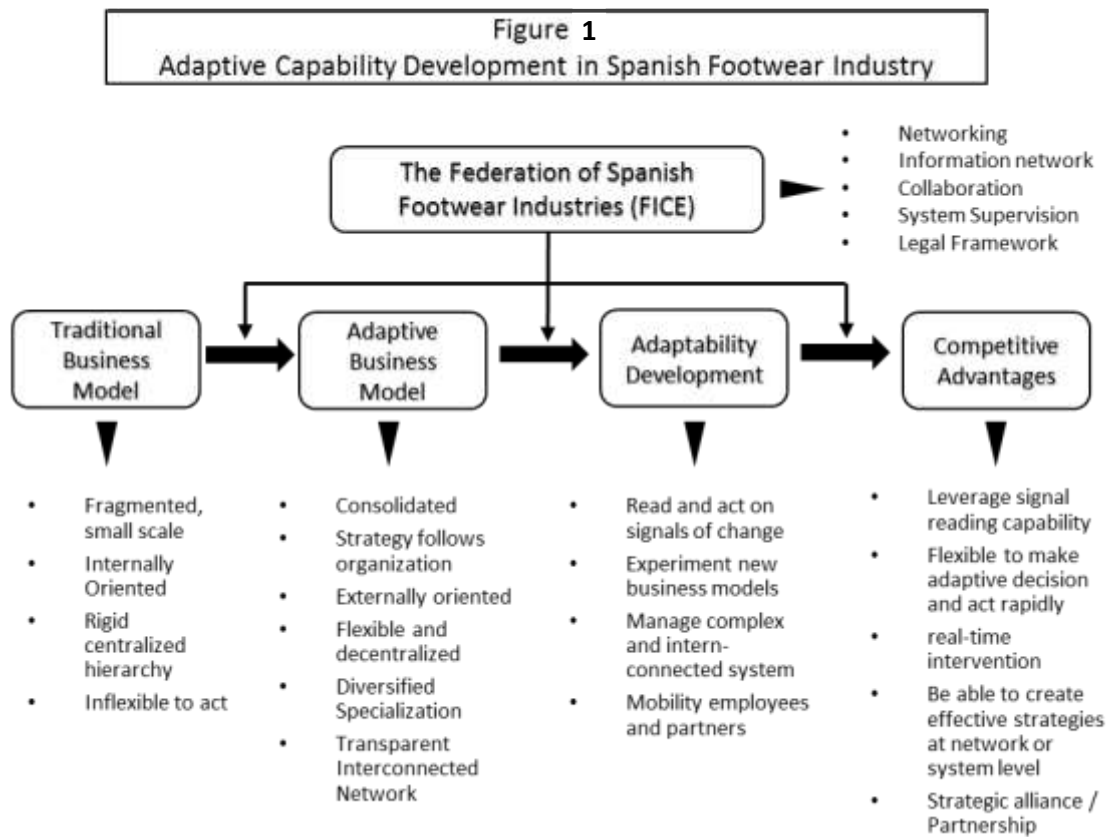
Since the emerging globalization and information technology revolution at the turn of the century, the business environment has been changing at a much faster pace. This rapid change has greatly increased uncertainty. Unfortunately, the traditional approach to strategy has been built upon a more predictable business environment, making the assumption that executives can analytically predict the future of any business accurately enough to choose a clear strategic direction. This assumption requires precise predictions, thus often leading managers to underestimate uncertainty. Underestimating uncertainty can be very dangerous,

because it can lead to strategies that fail both to defend a company against threats and to take advantage of the opportunities embedded in uncertainty. Another danger lies at the other extreme: if managers cannot find a strategy that works under traditional business models, they may abandon the analytical rigor of their planning process altogether and base their decisions on gut instinct (Courtney, Kirkland, & Viguerie, 1997).

Reeves and Deimler (2011) articulated that a firm’s competitive capability stems from four organizational capabilities that foster rapid adaptation:

- The ability to read and act on signals of change;
- The ability to experiment rapidly and frequently for business model, process and strategy;
- The ability to manage complex and interconnected systems of multiple stakeholders; and
- The ability to mobilize employees and partners.

Figure 1: Adaptive Capability Development in Spanish Footwear Industry



Source: Original from authors

Figure 1 illustrates the transition from a traditional business model to an adaptive model that facilitates the development of adaptive capabilities to gain competitive advantage in a volatile business environment. In the following sections we use this adaptability model to evaluate the Spanish footwear industry.

3. Analysis of the Spanish Footwear Industry

After careful search, we found the Spanish footwear industry was one of the few industries in European which stood out in fighting back the economic recession. It becomes our interest to look into the challenges the industry faced and the actions taken to stabilize and to turn around during the prolonged recession. We take Spanish Footwear Industry as a case

study to illustrate how adaptive strategy transformed an industry to be structurally integrated into the global markets and better equipped to compete for competitive advantages. The experience of Spanish footwear industry may have strategic implications to turnaround in the prolonged economic recession to other industrial sectors in Europe and the world as well.

To better understand the challenges and the strategies employed to recover from the recession, we need to briefly review where the industry was from.

3.1 The Early Development of the Industry

According to Miranda (1998), the industrial structure of the Spanish footwear sector was developed in the first thirty years of the twentieth century. By the 1930s, the industry had completed its process of modernization. In the 1950s, with insufficient raw materials and poor technological advancement, the Spanish footwear industry was completely outstripped in design and fashion by competitors in developed countries. The industry remained alienated from the trade liberalization process and was isolated from participating with the other western European countries in the growth of international trade. Spanish footwear companies simply could not catch up with the early export growth of their Italian counterparts.

In the early 1960s, the expansion of domestic demand led to industry development that facilitated rapid improvement in the average quality of the products and more regular renewal of designs.

According to Miranda (2001), the expansion of the Spanish footwear industry and its penetration of foreign markets were caused not only by advantages in labor costs over Spain's European counterparts, but also by the evolution of the exchange rate of the peseta against the dollar. This was a result of the changes in economic policy, e.g. customs measures, tax deductions, and export credit. With the country's economic progress and policy changes, Spain soon became the second largest footwear producer in Western Europe.

3.2 Failure to Adapt to the EU and Global Market Integration 1986-2005

The situation changed dramatically after Spain's entry into the European Community in 1986. At first, unification brought fresh air into the industry from other EU member countries in technical innovation, design and fashion development. The Spanish footwear industry started to realize its growth opportunities by gradually reducing its distance from its Italian counterparts. Nonetheless, the differences were still significant both in terms of product differentiation and export capacity. As shown in Figure 3, the Spanish footwear industry began to lose its market position in the industry with significant declines in production, revenue, and gross operating margin. In addition, rising labor costs neutralized productivity improvement. In the meantime, Spanish footwear exports declined in both total revenue (in real terms) and total production.

The overall declining trend was interrupted in 1994, when successive devaluations of the peseta made Spanish products abroad more cost competitive. However, the imports shifted from the traditional suppliers, Italy and France, to new low-cost suppliers such as China, Vietnam, and Indonesia. Plastic and textile shoes notably stood out as major imported products. The slowdown in Spanish footwear production continued in the first decade of the twenty-first century due to strong competition from low-priced products from Southeast Asian countries, especially China. Subsequently, this surge of imports resulted in significant trade balance deterioration.

Figure 2. Spanish Footwear Industry 1999-2012

Source: FICE, Spanish Footwear Annual Reports, 1999-2012

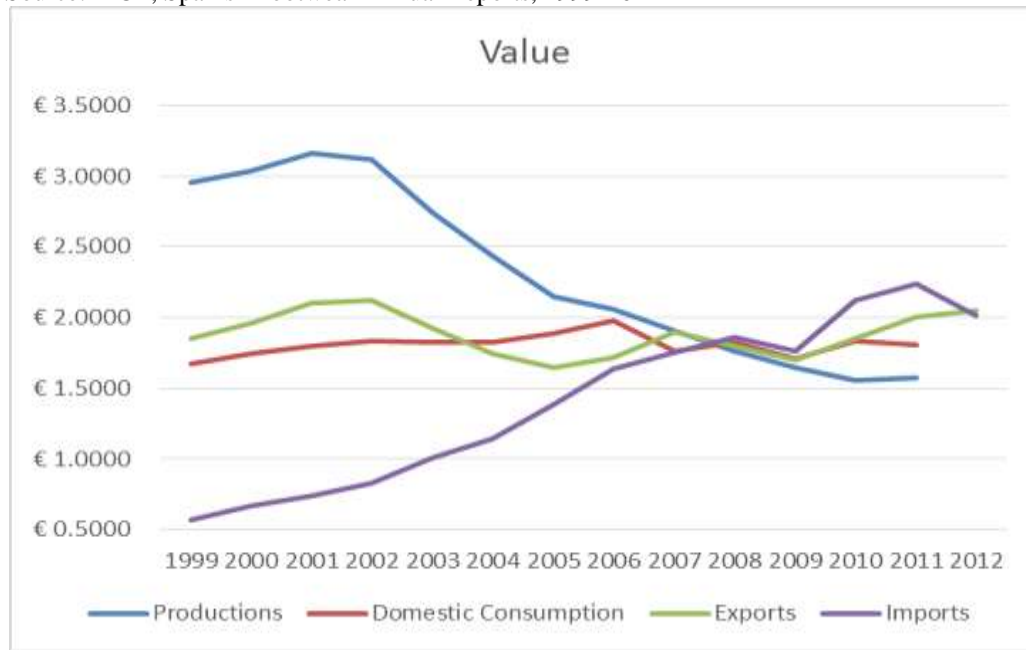
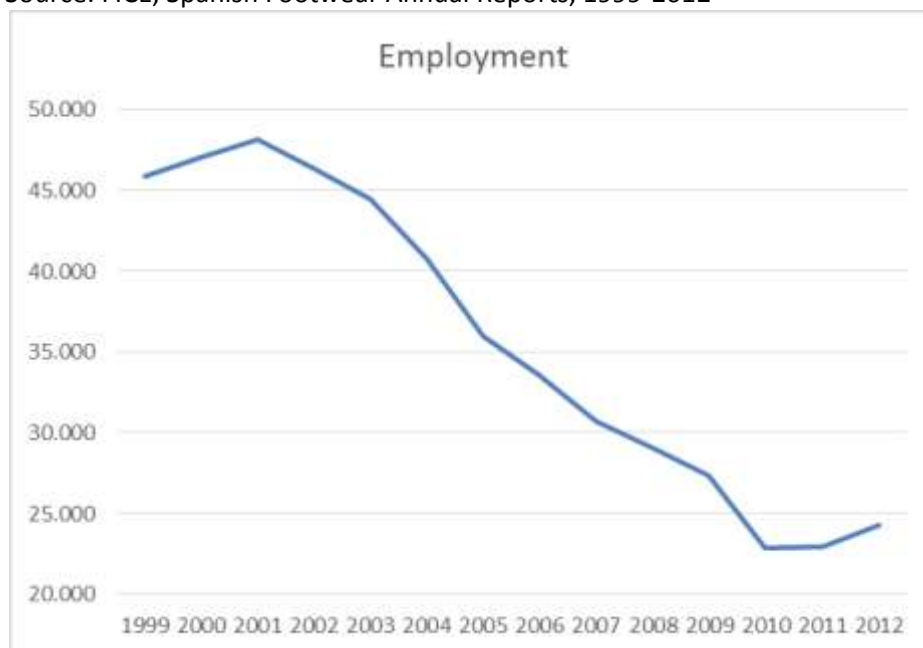


Figure 3. Employment in the Spanish Footwear Industry 1999-2012

Source: FICE, Spanish Footwear Annual Reports, 1999-2012



Overall, the Spanish footwear industry failed to adapt to the market change in multiple dimensions. First, it failed to respond to the structural change of the market. For both sales and production, the market had consolidated from fragmented local markets to an integrated EU market and then to an integrated global market. According to Ybarra, J. et al., (2002), the footwear sector in Spain before the twenty-first century can be characterized by a predominance of geographically concentrated small-scale workshop operations. The small size of the companies limited their ability to introduce new technologies, new product lines, and new business models.

Their fragmented business operations also limited their capacity to access the new global markets necessary for establishing international networks for sales, information exchange, and production cooperation. Spanish footwear manufacturers were struggling with shrinking demand and Asian competition. Even if they promoted the 'made in Spain' concept, the manufacturers as well as retailers and importers were looking to alternative sources for low cost manufacturing (CBI, 2010). Furthermore, due to the accelerating pace of change in fashion businesses, the companies encountered difficulties arising from the seasonality of production and product life-cycle reduction.

At the industry level, The Federation of Spanish Footwear Industries (FICE, by its Spanish acronym) failed to cultivate an environment that would encourage sharing and flow of information, interaction, flexibility in responding to new technology, and new patterns of competition. It also failed to build new ecosystems and networks that would better interact with the rest of the world for improved monitoring and access to global markets.

4. The Development of Adaptability 2003-2012

At the turn of the twenty-first century, Spanish footwear companies were experiencing a downturn in both production and employment. The industry was unprepared to react to the rapid movement of regional and global economic integration. However, by 2003, the industry had begun to realize the severity of the recession and decided to take strategic action to adapt to the change and regain its competitiveness as a major footwear producer and exporter. The industry started to gradually build up its capacity to respond to the changing environment.

4.1 In Search of a New Business Model: specialization

The SMEs began to seek ways to set themselves apart from their competitors to gain competitive advantage. In 2003, some decided to follow a differentiation strategy, focusing on design, quality, and brand promotion of higher value products for the upper end of the US and German markets. Unfortunately, high inflation at home and the strong euro against the US dollar made Spanish footwear less competitive internationally. In the meantime, the US and the rest of the world were hit by the financial crisis. US importers sought to change suppliers, veering towards Asian countries with low labor costs. China was an especially attractive source, because it had sufficient infrastructure for exports and a currency pegged to the US dollar. In the meantime, the other SMEs reacted to the business decline by downsizing further and using part time employment to reduce costs. The cost-cutting clearly could not offset the loss in business and revenue.

Then in 2004, the medium to large companies (those with over 50 employees) started to search for greater production agility so as to be responsive to market signals. Instead of reducing size and workforce, the footwear manufacturing companies consolidated, resulting in a larger scale of operation and a bigger workforce. While the total number of companies and total number of workers in the industry declined, half of the companies increased in size. Another encouraging development was specialization in marketing and distribution services. The geographical distribution of foreign trade by autonomous communities in Spain was such that some regions, like Galicia, Catalonia and Madrid, became export zones, although they did not have actual footwear manufacturing capacity. This phenomenon was a result of the rise of new distribution companies, which specialized in sales of footwear produced at home or imported from other areas for re-exportation (FICE, 2005).

In 2006, some Spanish companies started to follow the international trend of relocating parts of their production capacity to low-cost countries in order to regain their market position and competitiveness. The SMEs in the industry also learned to manage multi-company international business systems through international entrepreneurship. To strengthen their national and international marketing capabilities, they updated the traditional distribution

channels by creating their own sales networks in international markets to respond to the needs of global promotion and market their own brands (FICE, 2006).

Nonetheless, those innovations could not balance out the impact of the downward spiraling of the EU economy. 2006 production was down to 58% of the 2000 production level with a 29% decrease in overall employment. In 2007, 210 firms downsized, eliminating 2,806 jobs (FICE, 2007).

In 2008, despite the global economic crisis, the strategies of cooperation and multi-localization lessened damage to the Spanish footwear industry, translating into reduced rates of business closures and unemployment (FICE, 2008-2012).

4.2 Brand Building and Promotion

A footwear brand stands for a reputation, symbolizing for fine craftsmanship, materials and design. Branding and quality design play an increasingly important part for buyers. During the economic recession, some Spanish footwear manufacturers developed proprietary brands and held direct control of design, manufacturing, and distribution. The actions taken to build and promote Spanish footwear brands include:

Zapatos de España (Shoes from Spain) promotes the image of Spanish footwear by publicizing the authenticity of its brands, style, craftsmanship, and high-quality manufacturing capability.

Footwear Branding and Media Plan provides footwear companies with advice from a team of specialists who carry out a preliminary analysis of each of the companies, including its product type, market and positioning. Before drawing up diagnostics and an action plan for a brand, a communications plan and advertising media plan are developed for the clients.

The Modacalzado Industry Fair is a fundamental commercial platform for footwear, a vital element of the FICE's strategies to revitalize the industry. The fair serves as the "pulse" of the sector. During 2009, this fair was redefined to attract professional buyers and to support the companies in both manufacturing and trade. It helped firms in search of innovative ideas and solutions to improve the competitiveness of their businesses. In its efforts to adapt to the new environment and with the objective of reinforcing branding, design, and quality, Modacalzado is betting on a new fair concept where all fashion industries concentrate in one major event, starting in September 2013.

Under the leadership of the European Footwear Confederation (*Confederación Europea del Calzado, CEC*), the companies in European footwear industries started to cooperate with the goal of discouraging competition from Asian countries, particularly China. The strategies of this cooperation include: promoting antidumping measures, developing special technology advanced footwear (STAF), challenging Japanese tariff quotas on footwear, discouraging the new VAT on children's shoes, requiring made-in labels, supporting rules of origin, reviewing ecological label criteria and the REACH (Registration, Evaluation, Authorization and Restriction of Chemicals) Substances of Very High Concern list, supporting the LIFE+ Program and the LIFE ShoeLAW project, setting up European-Chinese conversations, promoting the CEN/TC 309 and ISO footwear standards, and working with customs offices.

4.3 The Role of the Federation of Spanish Footwear Industries (FICE)

The FICE, established in 1977, is the business association that represents the overall interests of the footwear sector, nationally and internationally. Its mission is to foster business competitiveness through various strategic initiatives at the sector level. With the support of other national and regional institutions, it has served as an umbrella for many initiatives. Over the past ten years, it has played a significant role in transforming the industry from the traditional segmented local operation to the new business model, adapted to the changing

environment. It also encourages commitment to innovation, both directly and through the vital support provided by the Footwear Technological Institute (INESCOP, by its acronym in Spanish) to make innovation as the key element to assure Spanish products continue to be competitive in the future.

5. Discussion: the development of adaptability in the Industry

It can be argued that the change experienced in the Spanish footwear industry in 2011 and 2012 was unexpected, and that this development was a random event. On the contrary, we argue that the change was the result of coordinated efforts to improve adaptability at both firm and industrial levels. The SMEs were facilitated by globalization and information innovation in the process of coping with the EU economic and financial recession. To back up our proposition, we analyzed the adaptability of the footwear industry, taking into account the four dimensions of adaptability proposed by Reeves and Daimler (2011): to read and act on signals of change, to experiment rapidly and frequently, to manage complex and interconnected systems of multiple stakeholders, and to motivate employees and partners.

We found that the footwear industry went through a structural transformation from a traditional rigid business model to a flexible and adaptive model, while fostering its own adaptive capability to tackle the uncertainty arising from the rapid changes in the environment.

5.1 Ability to read and act on signals of change

Many initiatives were taken to read and act on market signals. The FICE took a leading role in facilitating information exchange. For instance, it created various information management platforms where retailers, manufacturers, suppliers, customers, and other players can now meet and exchange information via specific projects. These platforms include fairs, seminars, workshops, and conferences, which establish a favorable climate for information gathering and sharing. The industry established communication networks with other domestic, regional and global institutions to stay tuned to signals of change. With the support of government, the industry was now able to respond swiftly and systematically to market signals.

The SMEs in the industry became more market focused. They were more agile and flexible, and they learned to read market signals early enough to make operational interventions. The adoption of new technologies, such as sophisticated point-of-sale systems, also helped this evolution by assisting companies in acquiring the right sales data for making buying, selling and pricing decisions.

5.2 The ability to experiment rapidly and frequently

The adaptive SMEs experimented with new business models, but the early stage of experimentation tends to be narrow in scope and limited to a few companies. For instance, numerous companies tried to build their business models using specialization as a differentiator. Some specialized in manufacturing their own brands with the objective of gaining control of design, quality and distribution, while others worked on contract orders or merely acted as importers and distributors. There was little interaction and coordination. Gradually, sophisticated models were developed and tested in the volatile markets. Entrepreneurial in nature, the new models globally strategized the design, manufacturing, distribution, and supporting systems.

Innovation is the locomotive for the growth of the Spanish footwear industry. Footwear companies introduced a range of advanced technologies that positioned them at the leading edge of the industry. They demonstrated that traditional business was not at odds with innovation and modern production.

The experiments with new business models also include quality control in sourcing of materials. Textile, leather and other inputs must comply with strict quality standards and undergo testing to ensure the quality of the final products. Shoe companies tested inputs from different stages of the supply chain so as to match product characteristics with the wants of the target consumers. During 2012, after a few years of a multi-location process, a consolidation of the production relocation process has taken place. This is in response to the increasingly demanding international customers who seek European quality combined with fast adaptation to fashion shifts and replenishment.

5.3 The ability to manage complex and interconnected systems of multiple stakeholders

The small scale and fragmented footwear industry did not have the ability to proactively manage the complexity and interconnections of multiple stakeholders. In other words, the footwear industry did not have the right platform to compete in the European and global markets. Fighting for survival, the companies worked closely with customers, suppliers, and other business partners; they organized and participated in conferences, fairs, seminars, and cooperation arrangements aimed at building strong and durable relationships as a way to manage globalization complexity.

For its part, the European Union took the lead in setting common legal and regulatory standards across industries to remove barriers for interaction. For instance, the European REACH (Registration, Evaluation, Authorization and Restriction of Chemicals) regulations helped replace numerous European directives and a significant number of regulations controlling dangerous substances.

At the national level, progress was made related to the current set of standards in the footwear sector. For instance, the LIFE+ Program and the LIFE Shoe LAW project were born with the aim of defining standards for environmental protection among European footwear industries.

Evidently, the footwear companies have made significant progress in managing the complex ecosystem. Although current initiatives point in the right direction, they are still at the early stage of development and need to traverse the learning curve to establish a more comprehensive system with the inherent capability to provide intelligence, assessment, and feedback mechanisms.

5.4 The ability to mobilize (motivate employees and partners)

One important dimension of adaptability is the ability to motivate the people in the system. Adaptive organizations need to create environments that encourage knowledge flow, diversity, autonomy, risk taking, sharing, and flexibility. During the earlier stage of the footwear industry crisis, it was very difficult for companies to motivate employees and partners, as they were struggling for survival in an environment beyond their control. Downsizing was the dominant strategy taken by most firms, but they had a devastatingly negative impact on worker morale.

To fight back against the decline that started in 2006, the industry began to act as a whole to regain competitiveness by placing resources in professional training in new technologies and skills. It created the *Contrato Programa* (National Plan for Continuous Training), which aimed at supporting technological innovation and developing specialized skills. The FICE played a key role in the area of continuous training with three objectives:

1. Continuous adaptation so as to keep pace with the evolution of job markets and job requirements by strengthening the technical capability of companies;
2. Social promotion to avoid the obsolescence of professional qualifications and improve working conditions; and

3. Pre-emptive measure for difficulties arising from financial or technological restructuring.

Initiatives such as IdeasLab and the IdeasLab-Calzado Award for Creative Talent were created to promote innovation, design, and creativity. Those initiatives proved to be effective in encouraging risk taking, sharing, and diversity.

6. Conclusions

As Reeves and Deimler (2011) argued, contrary to classic strategic thinking (e.g. Alfred Chandler, 1962), adaptation as a strategy follows organization. In other words, the flexibility of an organizational structure dominates its adaptability. Under the rigid and internally focused structure of the traditional footwear business in Spain, firms could not adapt to the rapidly changing environment. Fundamentally, flexible structure in the format of networks or ecosystems was gradually established, thereby fostering the industry's capability to adapt for innovation, specialization, internationalization, partnership, strategic alliances, and cooperation. The footwear sector is in continuous structural transformation toward being flexible and adaptive. It has pushed companies to adopt various business models and a wide range of strategies to improve their presence in international markets and to strengthen their competitive advantage. Inter-company cooperation and geographical multi-location have been the strategies that have had the most impact on diversifying business models.

The footwear sector is undergoing continuous technological innovation and expansion. Some of the most significant innovations were related to monitoring market trends, using new materials, and optimizing logistics and distribution systems. The innovations were carried out through projects with related industries and activities, incorporating advanced computer assisted design (CAD) and computer aided manufacturing (CAM) technologies.

However, the challenges facing the industry in the coming years will remain competitive through technological innovation as the basis for improving globally product quality and enhance even more strongly their brands in international markets by bringing back operations to the country of origin, i.e., "made-in-Spain" (Martínez-Moraa, and Merino, 2014)

In conclusion, the encouraging developments in 2011 and the stability achieved in 2012 were not random events. Increasing adaptability was the impetus for a turnaround in the industry. The adaptive strategy of the industry started to gain competitive advantage in the regional and global markets and led the industry toward recovery.

In addition, the Spanish private sector, including the footwear industry, has achieved a drop in unit labor costs. The renewed competitiveness in costs and flexibility in responding to market demands has led to a rise in exports despite the recession in Spain's export markets in 2011 and 2012 (Mallaby, 2012). However, the situation remains fluid. The economic and financial recession continues. The Spanish economy in 2011 and 2012 experienced enormous difficulties. The turnaround in the footwear industry remains the light in the lingering European economic recession. The poor economic environment could drastically compromise the progress made in the footwear industry.

However, adaptive strategies and adaptability have proven to be the winners in gaining competitive advantage for both new and established companies that cope with uncertainty. In order to adapt, in a context of environmental turbulence, firms need to select particular organizational structures to increase adaptability. It calls for more "organic" structures with less central control and greater innovation and flexibility in response to market dynamics. The Spanish footwear industry could exemplify the policy options for other industries in their recovery endeavors.

In fact, the implication of developing adaptability for eruptive climate is not limited to a business or an industry, it is applicable to an individual and any other social organizations.

Individuals should take longer-term view and be open-minded in career planning and seek out work environments that will help them to be more adaptable in the future. Those who embrace adaptive aptitude and skills are best positioned to survive. Adaptability should be an essential dimension in formulating its strategy for survival and sustainable growth for any organization in currently turbulent changing environment.

This paper represents an initial effort to look into the disruptive changes in the Spanish footwear industry as a case study. Our future research plan includes further study of adaptive strategies in relation to organizational structure; these will be verified with more comprehensive data analysis at both firm and industry levels.

7. References

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Family and Non-Family Business Differences in Corporate Social Responsibility Approaches

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Abstract

Despite many studies on corporate social responsibility (CSR), few have analyzed the specific case of the family business. Family firms have certain characteristics that make them different from non-family ones in terms of objectives, organizational structure and strategic behavior, making it worthwhile to analyze whether these differences are also reflected in their attitude towards CSR. Given the importance of family businesses in most economies, this paper will contribute to filling this gap in the literature identifying specific aspects that can make a difference in the management and implementation of the family firm's CSR policies, compared with their non-family counterparts.

Keywords: family business, CSR, *familiness*, management

J.E.L. classifications: M14, M16, M21.

1. Introduction

The current economic situation has aroused widespread concern in society about the relationship between business and society, and the overall impact of commercial activities. In order to achieve sustainable socio-economic development, an increased focus on firm behavior and decision-making in areas such as human resources management and environmental matters is necessary. This has led to a growing interest in corporate social responsibility (CSR), and a concurrent need to include CSR policies in business strategy, both in large companies and SMEs.

This general concern regarding the nexus between business, politics, and social issues has also moved to the academic field, driving an increasing level of research and publications on the subject. Thus, there are now many studies on CSR, although most of them focus on large corporations. Less attention has been dedicated to small and medium enterprises (Murillo & Lozano, 2006; Perrini, Russo, & Tencati, 2007) and even less to the specific case of family businesses (Jiménez & Paternostro, 2010).

Family businesses have certain differences compared with other companies, arising precisely from the influence of the family on the vision and objectives of the company (Chrisman, Chua & Sharma, 2005; Fitzgerald et al., 2010). These differences are also reflected in their attitude towards CSR policies. In this sense, there are some characteristics of family businesses that can be considered strengths when adopting socially responsible behavior, and at the same time, there are other aspects that can be considered as weaknesses.

In the literature there is no clear consensus regarding the commitment of the family business to CSR. Morck & Yeung (2004) suggest that in these companies the interests of the family are given priority over socially responsible behavior; while Déniz & Cabrera (2005)

conclude that family firms do not behave uniformly in their orientation to CSR. Other authors, such as Uhlaner, Goor-Balk & Masurel (2004) and Dyer & Whetten (2006), consider that the orientation towards CSR in these companies is higher than in others. However, despite being a matter of great interest and strong relevance to today's society, so far it has been a topic only addressed in a limited number of studies (Fitzgerald et al., 2010; Campopiano, Massis & Cassia, 2012; Benavides, Quintana & Guzman, 2013). This paper therefore aims to contribute to filling this gap in the literature. Hence, the main objective is to identify those aspects of the family business character that can make a difference in the implementation of socially responsible behavior in these businesses. With this intention, in the next section a brief review of the concept and importance of corporate social responsibility is presented; followed by an analysis of the family business. Subsequently, the specific aspects of the family business that may hinder or facilitate the adoption of responsible behavior are discussed; and finally, the main conclusions are presented.

2. Corporate social responsibility

CSR has grown in importance principally due to a rapidly changing business environment involving an explosion in global production chains, increased pressure on natural resources, unequal population growth, the rise of the informed and increasingly concerned consumer, the growth of activist groups, and changing regulations. CSR plays, in this sense, two key roles. On one side, it permits a better understanding of these shifting social conditions, the impact they can have on and business organization, and the necessary conceptual and/or operational changes that should be made. On the other side, it provides a roadmap whereby companies taking CSR seriously can identify an increasingly wide range of competitive advantages and business opportunities through conducting business in a responsible manner (Hilliard, Priede & López-Cózar, 2014). At the same time, the idea of a more responsible management stance generally is considered by many to be a way to regain lost credibility and the trust needed to overcome the economic recession (Yelkikalan & Köse, 2012; Sanchez & Gallardo, 2013).

CSR began to develop in the second half of the last century (Bowen 1953, Davis 1973), although it was not until the nineties when it really became relevant, resulting in a large increase in theoretical and empirical studies, plus reports from different governmental and nongovernmental organizations (Aparicio & Valdés, 2009). The concept has become increasingly clear, and involves incorporating a sense of responsibility for the social and environmental impacts of a company's actions, and combining them with the economic responsibilities that companies have always assumed.

The European Commission proposed in 2001 a definition that has become widely used, considering it as "the voluntary integration by companies of social and environmental concerns in their business operations and in their interaction with their stakeholders" (COM 2001). More recently, the Commission itself has renewed the definition alluding to the responsibility of enterprises for their impacts on society, and stressing the need to work with all stakeholders to "integrate social, environmental and ethical concerns, in relation with human rights, and consumer concerns in their business operations and core strategy" (COM, 2011).

Thus, CSR is considered by many to be about voluntary actions undertaken by firms for their employees, society and the environment (Barnea & Rubin, 2010)¹¹. This means,

¹¹ An increasing number of those immersed in the field of CSR (including the authors of this paper) argue that the voluntary nature will have to give way to a more obligatory approach, something reflected in the new requirement by the EU for companies of over 500 employees to publish a separate social and environmental report (or explain why not).
http://ec.europa.eu/internal_market/accounting/non-financial_reporting/index_en.htm, Consulted 26/06/2014.

therefore, to take into consideration the interests, not only of shareholders but of all the groups with which the company interacts (stakeholders). It is this stakeholder theory which provides the conceptual framework widely used in studies concerning the issue (Bigné et al., 2012). Therefore, responsibility criteria are incorporated into the decisions, both daily and strategic, and consequently, in the actions undertaken. Therefore, a socially responsible company is committed to sustainable growth and to maintaining a balance between social, economic and environmental aspects.

Nevertheless, a sincere approach needs to consider the adoption of a Corporate Social Performance model (CSP) which emphasizes the importance of not only identifying, evaluating, and balancing a company's responsibilities, but also the level of responsiveness as they implement new policies and new operational processes, plus a consideration of the outcomes in terms of an organization's economic, social and environmental impacts (Wartick & Cochran, 1985; Wood, 1991). Without such a holistic vision, companies may simply analyze and define changing responsibilities without adopting a strategic and coherent approach to new policies and process. Furthermore, the third step of the CSP model (considering the outcomes) is perhaps the less developed, with few companies systematically assessing and measuring the overall change in their social and environmental impacts that should be apparent as a result of the incorporation of a responsible management philosophy (Hilliard, 2013).

How companies respond to these new demands from society has to consider how an organization identifies, prioritizes, implements and manages its different responsibilities. It is important to note that the process used may be as important as the outcomes they produce. According to Jones (1980), "corporate behavior should not in most cases be judged by the decisions actually reached but by the process by which they are reached". In the case of family firms, there are specific characteristics regarding how internal processes are carried out that differentiates them from other organization types.

It should also be pointed out there is no single set of responsibilities, and therefore levels and types of responsiveness will vary considerably across different organizations (Van Marrewijk & Werre, 2003). While size and type will be relevant, specific internal and external factors should also be considered, the former including organizational culture and design, compensation systems, and ownership structure (Campbell, 2007), the latter including institutional systems, wider cultural considerations, and geographic-specific social issues (Welford, 2005; Doh & Guay, 2006).

A further aspect of CSR is the leadership role played by those at the top of the organizational chart. In the case of family firms, this leadership comes from the family. How the management of their company differs from the management of other types of companies will clearly impact on how they approach CSR. Reasons for considering the impact of leadership in CSR include:

- A gap may exist between what is needed to manage a firm's responsibilities, and the existing business practice, or organizational values. It is important that firm leaders take the necessary steps to close that gap.
- Nothing is more likely to destroy an initiative or new processes for responsible management if senior individuals refuse to support them, or actively work against them (Brickley, Smith & Zimmerman, 2002).
- All too often, change fails due to either a lack of long-term attention or a lack of commitment by senior management (Kotter, 2007). For many firms, taking a responsible stance requires changes to be made. Both taking seriously the need for change and putting it into practice over the long-term, requires a commitment by

senior management to ensure that the changes made are firmly anchored and not simply cosmetic.

A large number of initiatives and programs exist through which companies understand and manage these responsibilities, amongst the most well-known and widely-used being the Global Compact and AA1000 to orientate companies towards a more responsible management stance and better understanding of different stakeholder concerns; the ISO 14000, SA8000 and OHSAS 18001 for respectively environmental management, responsible labor conditions, and workplace health and safety; and the GRI framework for identifying, measuring, and reporting the consequent outcomes.

A wide number of academic studies show that the implementation of CSR activities has positive effects on the company, ranging from improved institutional relations, company image and reputation (Campbell, 2007; Hammann, Habisch & Pechlaner, 2009; Benito & Esteban, 2012); reduced costs and increased sales (Husted & de Jesus Salazar, 2006); increased opportunities for innovation (Nidumolu, Prahalad & Rangaswami, 2009); more effective risk analysis through stakeholder dialogue (Rasche & Esser, 2006); improved brand reputation and customer relations (Kitchin, 2003; Polonsky & Jevons, 2006); opportunities for organizational learning and effectiveness (Brickley, Smith Jr. & Zimmerman, 2002); and improved employee motivation, commitment, and talent retention (Cullen, Parboteeah & Victor, 2003).

However, in times of crisis, the financial difficulties faced by many companies can have a clear impact on CSR initiatives; while in employee relations this impact can be negative, in others, such as environmental or corporate governance policies, the impact can be considered positive (Jacob, 2012). However, even in an economic downturn Yelkikalan & Köse (2012) and Sánchez & Gallardo (2013) find empirical evidence which corroborates that undertaking CSR activities has a positive effect, not only in business, but also in society in general.

Similarly, in the particular case of the family business, although the number of studies is limited, Niehm, Swinney & Miller (2008) found that socially responsible behavior is related to the economic viability of the company. For this reason, it is extremely useful to delve into those characteristic aspects of family businesses that may limit or, conversely, facilitate the implementation of CSR policies in these specific types of firms.

3. Family business

When studying the family business, it is surprising to discover that, despite its importance in most economies around the world, there is still not a required, unique and universally accepted definition (O'Boyle, Rutherford & Pollack, 2010). The diversity of views of what constitutes a family business affects the improvement, quality and scientific rigor of the research in the field, and as different studies have adopted different definitions, making comparisons between them and drawing pertinent conclusions has sometimes been quite complicated, perhaps unnecessarily so.

Nevertheless, in the European context there is broad agreement on a definition that enjoys widespread acceptance. In 2009, the European Group of Family Enterprises combined two ideas around which the concept of family business has traditionally turned: the participation of members of the same family in both the ownership and the management of the business. Therefore, it requires that people with family ties have control over the capital of the company, and participate actively in the management process. So regardless of size and legal form, if a company is run by its owners, and these belong to a family, the entity can be considered a family business.

However, this definition does not include a third aspect also considered important in this type of business: the idea of continuity. Indeed, in the international scientific community

there does exist a certain consensus on the parameters that define the concept of family business, and in addition to the requirements of ownership and management, the intention that the business will endure over time through transmitting the company to the subsequent generations is usually added (Kraus, Pohjola & Koponen, 2012). To this extent, we can define a family business as one in which members of one or more families participate significantly in its capital, assume managerial responsibilities and intend to pass the business on to future generations (Astrachan, Klein & Smyrios, 2002, Benito, Priede & López-Cózar, 2014).

Unlike any other type of firm, in which there exist two interacting subsystems -the ownership and the management system- in the family business three different subsystems coexist: ownership, management, and family. (Vallejo, 2011). Each of this subsystems has its own aspirations and interests, implying the presence of multiple and complex relationships among them. These interactions often cause the objectives, the culture, the organizational structure and the strategic behavior of the family business to differ from non-family firms (Cabrera, De Saa & García, 2001; Chrisman, Chua & Sharma, 2005; Zellweger, Eddleston & Kellermanns, 2010; López-Cózar, Priede & Benito, 2013; Benito, Priede & López-Cózar, 2014).

Additionally, in the case of implementation and management of CSR policies in the family firm, Bingham et al. (2011) found significant differences in the behavior of family and non-family firms. One of these differences identified in family firm behavior was that they were more concerned with CSR generally (Graafland, 2002). This was especially the case with large family firms. Uhlaner, Goor-Balk & Masurel (2004), in their work with family businesses in the Netherlands, found that the family nature favors the establishment of a special relationship with workers, customers and suppliers. Meanwhile, Lopez-Iturriaga, López-de-Foronda & Martin-Cruz (2009) conducted a study with companies from five European countries, and conclude that family-owned companies are more likely to focus on CSR than those with other investors. In a similar line, family-enterprises where the family itself provides a substantial part of the capital are more likely to take a long-term view of company success (Astrachan, Zahra & Sharma, 2003).

4. Differentiating issues affecting responsible behavior in family firms

The aforementioned interrelations between family, ownership and management in family firms create a certain set of attitudes and actions that highly differentiate them. These behaviors can sometimes hinder the fulfillment of its social responsibilities, while in other cases it may be a facilitator of responsible behavior.

Regarding decision-making in the family business, it is common to give preference to the interests of the owner family over the interests of the business itself or those of other stakeholders (Morck & Yeung, 2004; Déniz & Cabrera, 2005). The welfare of the family and the achievement of harmony between its members and between them and the company, and avoiding potential conflicts, can lead to decisions being taken or actions performed that may be detrimental to other stakeholders (Jimenez & Paternostro, 2010). Clearly, this method of taking decisions will also apply to CSR issues. Moreover, in many cases, especially in first-generation family businesses, such decision-making is usually concentrated in the founder, who often resists delegating, leading to a high level of dependence on one person (Feltham, Feltham & Barnett, 2005; Cabrera, Déniz & Martin, 2011). As a result, an excessive paternalism (defined as the extreme protection of the founder towards the rest of the family) is not uncommon, to the point of conditioning their decisions and independence (Chirico & Nordqvist, 2010). Generally speaking, the concept of paternalism is associated with safety, security or protection, and in some cultures it has an implicit positive connotation, while in others the opposite is the case, as it can restrict the freedom and the autonomy of individuals (Gupta & Levenburg, 2012). Taken to the extreme, in the family business it can soon become

an authoritarian paternalism, canceling the decision capacity of the employees and creating a dependency on the founder, and thus limiting their development potential (Ip, 2009).

This is singularly different to how CSR is approached in a non-family firm, where analysis usually focuses on whether to create a separate department for social responsibility, whether it should receive board-level attention, and which issues should be under the authority of the social responsibility management function (Van Marrewijk & Werre, 2003; Garriga & Melé, 2004; Aldama, Amar & Trostianki, 2009). A study by Brammer and Millington (2003), for example, suggests a clear correlation between where control of social responsibility management is located within the organization structure and the amount of resources dedicated to it. Fewer resources were allocated when it was located within the central administration of the organization, and more when a separate zone of authority (some kind of CSR department) was created. However, due to the decision-making characteristics of the family firm, this issue of CSR management location is somewhat irrelevant.

Regarding the organizational culture, research suggests that the values of the founder are extremely relevant when implementing CSR policies (Hammann, Habisch & Pechlaner, 2009; Moura-Leite, 2011; Herrera, Larrán & Martinez, 2013). One characteristic of the family business is precisely the influence of the founder (or founders) in the transmission of values, (both to the family and to the business), not only while they are actively managing the company, but even once they have retired (García-Alvarez & Lopez-Sintas, 2001; Tàpies & Fernandez, 2012). Thus, future owners and/or business managers often have a deep understanding of the business and likely retain the culture and values that are passed from generation to generation (Cabrera, De Saa & García, 2001; Sirmon & Hitt, 2003; Bellow, 2004; Chirico & Nordqvist, 2010). In fact, various studies suggest that the integrity and commitment of the successor may be more valued than technical skills when ensuring that in the succession, the reputation and values of the company are maintained (Sharma & Rao 2000; Chrisman et al., 2005).

In non-family firms, the case is often different. Values imparted may require less of a personal leadership commitment from the family members, and more use of external parameters. In publicly listed companies for example, a common program in Spain is the Unified Good Governance Code of Listed Companies, developed by the Comisión Nacional del Mercado de Valores (CNMV), and internationally the OECD Principles of Corporate Governance.

As a result, family businesses have a strong corporate culture with a unique bundle of intangible resources known as *familiness* (Habbershon & Williams, 2000), which assumes that the cohesion and responsibility of its members are generally higher than in other companies (Pieper, 2009; López-Cózar, Priede & Benito, 2013.). Likewise, the *familiness* gives a special strength and stability to the relationship between company members and between them and the main stakeholders, leading to high levels of confidence (Arregle et al., 2007; Cabrera, Déniz & Martin, 2011; Valejo, 2011), aspects that favor the success and effectiveness of actions carried out in terms of CSR.

This sense of commitment and integration often leads to the family name being used as the company's name, something which is positively perceived by customers, and society, and permits the identification of the company with the strong family values (Jiménez & Paternostro, 2010; Zellweger, Eddleston & Kellermanns, 2010; Cabrera, Déniz & Martin, 2011; Campopiano, Massis & Cassia, 2012). In these cases, as concluded in a study conducted by Uhlaner, Goor-Balk & Masurel (2004), when the family name is included in the business name, the image of the family is committed, raising the concern amongst its members to behavior in a socially responsible manner.

In one way, CSR practices can be understood as actions aimed at creating long-term sustainable development of both the company and society (Aparicio & Valdés, 2009).

Aguilera et al. (2006) show that companies that have a clear future vision will take into consideration to a greater degree social and environmental issues when making decisions. Therefore, the long-term orientation typical in family businesses, based on the interest to survive and transfer the business to future generation, promotes commitment to the implementation of CSR activities (Anderson, Mansi & Reeb, 2003; Wagner, 2010, Bingham et al., 2011; Vallejo, 2011; Campopiano, Massis & Cassia, 2012).

Concerning local relationships, those companies that have a strong presence and significant roots in the community, as well as being a key element for development and welfare for the region, use their *embeddedness* in the local community to faster detect the needs and concerns of the stakeholders, encouraging in this way a more social responsible behavior (Uhlener, Goor-Balk & Masurel, 2004; Benito & Esteban, 2012). Gallo (2004) believes that family businesses tend to engage with their environment in a unique way, which is also a factor that favors the implementation of CSR practices. Niehm, Swinney & Miller (2008) note that family businesses develop a special feeling towards the community, leading them to identify it's necessities as their own. In the same line, Bingham et al. (2011) find that family firms generally recognize the importance of their relationship with the local community, and tend to show very high concern for its problems and worries.

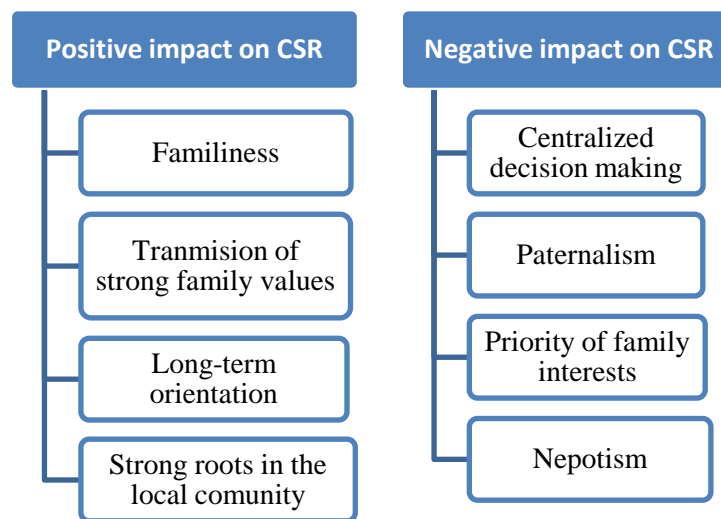
Finally, regarding human resources policies (which is a key CSR issue), the aforementioned family-ownership-management triangle emphasizes that personnel management in family businesses is different than in non-family ones (Reid & Adams, 2001; De Kok, Uhlener & Thurik, 2006). Sirmon & Hitt (2003) emphasize the importance of human resources within the family business, but also highlight a more complicated human resources management, such as facing difficulties in attracting and retaining highly qualified executives. An especially common practice in the family business is nepotism, which is the tendency to hire family members or very close relatives, regardless of their abilities (Vinton 1998; Astrachan, 2010). This behavior leads to the hiring and promotion of family members for management positions, without considering other, perhaps better-qualified candidates. This practice may be perceived by non-family employees as unprofessional and unfair (Padgett & Morris, 2005; Barnett & Kellermanns, 2006).

5. Conclusions

Interest in CSR has significantly increased in recent years as a result of a more demanding society, requiring a new attitude and a change in business behavior, pressing companies to demonstrate commitment to social and environmental issues, thus contributing to sustainable long-term development.

In this paper we have studied different characteristic aspects of family businesses that make them different to non-family ones, in terms of their disposition to behave responsibly. In general terms, the aspects favoring the implementation of CSR policies- having a strong entrepreneurial culture (*familiness*), a long-term orientation, an idea of leadership based on the personal preferences of the owners, and a special relationship with the local community; are stronger than those who can be considered a barrier- centralized decision making with an individualistic style of internally processing such questions, priority of the interests of the family and nepotism. Figure 1 shows the factors and their influence. After analyzing in detail each of these factors, we can conclude that the family character of the company is a factor that positively affects the development of socially responsible actions. These results are consistent with previous works such as Adams, Taschian & Shore (1996); Graafland (2002), Lopez-Iturriaga, López-de-Foronda & Martin-Cruz (2009) and Bingham et al., (2011) which support this fact. We would hope to build upon, and develop these conclusions in future research of both an analytical and empirical nature.

Figure 1. Specific family firm characteristics and their influence on CSR policies.



Source: author compiled data

All things considered, the attitude towards CSR policies is based on the mission, vision and values of the company and its role in society. In the case of family firms, due to the strong influence of the family, this vision is strongly determined by the values, integrity, and sense of justice of the family itself, and these ideals will be developed and emphasized as the business itself develops and grows. Without the belief and commitment of the family, there may not be a solid CSR commitment in the company. On the other hand, if the company does not promote responsible behavior, it may not meet the needs of family members. A virtuous circle that will result in a positive outcome is thus created, not only for the company, but also for its stakeholders and the society as a whole.

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Is Spain an Attractive Country for Foreign Investment?: A Macroeconomic Analysis of the Country's Recovery from Recession

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Abstract

The latest report by J. P. Morgan² (January 10, 2014) entitled "*Spain is Back*" analyzes the resurgence of the Spanish economy, based on the most recent economic data. Uncertainty exists as to whether Spain's return to the path of economic growth is actually solid, or if, on the contrary, the country is still adjusting to the economic plunge it experienced in 2007-2008.

Data regarding the country's steady economic recovery provides substantial evidence for greater possibilities in foreign direct investments and the lessening of existing risk factors.

Keywords: employment, macroeconomics, recession

JEL code: E200

There is a debate about whether the Spanish economy has recovered, given that there still exists a rate of high employment with four and a half million people unemployed (Service of Employment, Spain, September 2014).

Spain's economic downturn was triggered by a dramatic mortgage and real estate crisis in 2008. The country's political leaders confronted this crisis with elaborate public spending plans like "Plan E"³, which not only distorted the reorganization of production factors, but also worsened the country's fiscal situation by increasing the volume of public spending (3,000 million euros⁴), as state revenues dwindled. This created a crisis of debt and a deficit that rose from 308,559 million euros in 2008 to 301,435 million euros in 2009 (Revenue, General State Budget, Ministry of Finance and Public Administration, Government of Spain).

These injections of economic liquidity into the system were administered through public programs by eight governmental ministries in an attempt to lessen the impact of the crisis and to achieve economic stability. However, this public spending failed to stimulate consumer spending or to elicit infusión of capital into the private section. As a consequence, the government found itself attempting to pedal a bicycle that had lost its chain.

Two different administrations at the central government level continued the failed policy of large public spending programs while government revenues declined and unemployment rose, leading to a diminishing tax base. This resulted in budget deficits within local municipalities, the autonomous regional governments, and, ultimately, the central government itself.

Freezing public spending would have left public budgets mismatched at levels equal to 7% or 8% of the country's gross domestic product (GDP). However, the adoption of different

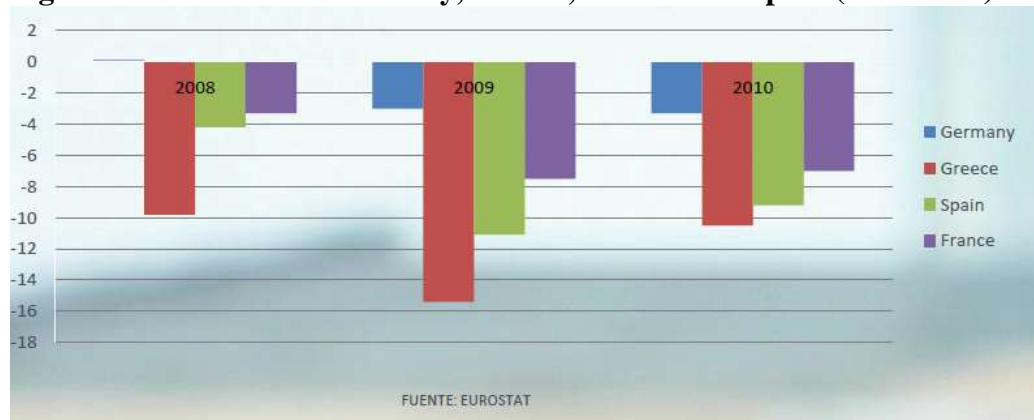
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² Spain is back, J.P. Morgan, Economic Research, Global Data Watch, January 2014.

^{3, 4} Fund for stimulating the economy and jobs, Ministry of Finance and Public Administration, Government of Spain. Real Decreto-Ley 9/2008, Orden Ministerial 3566/2008

failed stimuli programs generated a dramatic decline in the economy, causing the GDP to slide from 4.5% in 2008 to 11.1% in 2009. (Eurostat).

Figure 1. GDP rates in Germany, France, Greece and Spain (2008-2010)



Source: Eurostat

The budgets of the government grew in size and presumably spent 40% of GDP of the country in 2008, rising to 53% of GDP in 2009 (Eurostat).

Figure 2. Public balance and public debt in Europe (2008-2011)

	Public balance (net borrowing/lending of consolidated general government sector)				General government debt (general government consolidated gross debt)			
	2008	2009	2010	2011	2008	2009	2010	2011
EU-27	-2.4	-6.9	-6.5	-4.4	62.2	74.6	80.0	82.5
Euro area	-2.1	-6.3	-6.2	-4.1	70.2	80.0	85.4	87.3
Belgium	-1.0	-5.5	-3.8	-3.7	89.2	95.7	95.5	97.8
Bulgaria	1.7	-4.3	-3.1	-2.0	13.7	14.6	16.2	16.3
Czech Republic	-2.2	-5.8	-4.8	-3.3	28.7	34.2	37.8	40.8
Denmark	3.2	-2.7	-2.5	-1.8	33.4	40.6	42.9	46.6
Germany	-0.1	-3.1	-4.1	-0.8	66.8	74.5	82.5	80.5
Estonia	-2.9	-2.0	0.2	1.1	4.5	7.2	6.7	6.1
Ireland	-7.4	-13.9	-30.9	-13.4	44.5	64.9	92.2	106.4
Greece	-9.8	-15.6	-10.7	-9.4	112.9	129.7	148.3	170.6
Spain	-4.5	-11.2	-9.7	-9.4	40.2	53.9	61.5	69.3
France	-3.3	-7.5	-7.1	-5.2	68.2	79.2	82.3	86.0
Italy	-2.7	-5.4	-4.5	-3.9	106.1	116.4	119.2	120.7
Cyprus	0.9	-6.1	-5.3	-6.3	48.9	53.5	61.3	71.1
Latvia	-4.2	-9.8	-8.1	-3.4	19.8	36.7	44.5	42.2
Lithuania	-3.3	-9.4	-7.2	-5.5	15.5	29.3	37.9	38.5
Luxembourg	3.2	-0.8	-0.8	-0.3	14.4	15.3	19.2	18.3
Hungary	-3.7	-4.6	-4.4	4.3	73.0	79.8	81.8	81.4
Malta	-4.6	-3.9	-3.6	-2.7	62.0	67.6	68.3	70.9
Netherlands	0.5	-5.6	-5.1	-4.5	58.5	60.8	63.1	65.5
Austria	-0.9	-4.1	-4.5	-2.5	63.8	69.2	72.0	72.4
Poland	-3.7	-7.4	-7.9	-5.0	47.1	50.9	54.8	56.4
Portugal	-3.6	-10.2	-9.8	-4.4	71.7	83.2	93.5	108.1
Romania	-5.7	-9.0	-6.8	-5.5	13.4	23.6	30.5	33.4
Slovenia	-1.9	-6.0	-5.7	-6.4	22.0	35.0	38.6	46.9
Slovakia	-2.1	-8.0	-7.7	-4.9	27.9	35.6	41.0	43.3
Finland	4.4	-2.5	-2.5	-0.6	33.9	43.5	48.6	49.0
Sweden	2.2	-0.7	0.3	0.4	38.8	42.6	39.5	38.4
United Kingdom	-5.1	-11.5	-10.2	-7.8	52.3	67.8	79.4	85.0
Iceland	-13.5	-10.0	-10.1	-4.4	70.3	87.9	93.1	98.8
Norway	18.8	10.6	11.2	13.6	48.2	43.5	43.7	29.0
Croatia	-1.4	-4.1	.	.	28.9	35.3	.	.
Turkey	-2.8	-7.0	-2.6	.	40.0	46.1	42.4	.

(1) Data extracted on 22.10.2012.

Source: Eurostat (online data code: gov_dd_edpt1)

Source: Eurostat

The public debt to GDP soared from 61.7% in 2010 to 92% in 2013, and to about 98% in 2014 (INE: National Institute of Statistics, Spain), thus creating a total debt equal to what the country produced in one year.

Figure 3. Public debt to GDP in Germany, France, Greece and Spain (2008-2010)

Source: Eurostat

This, coupled with nearly five million officially unemployed, left Spain, in 2013, with a deeply troubling economic and social situation which the government seemed unable to resolve.

A detailed analysis of unemployment shows that the economic crisis reached a record high in July 2007, when 19.5 million ceased to contribute to the nation's Social Security program (SEPE: Public Service of Employment, Spain). 3,340,000 were lost by February of 2013. The year 2013 ended with a total of 4,701,338 registered unemployed in public employment services, which meant 147,385 less than the year before and the first significant decrease for this indicator since 2006 (SEPE: Public Service of Employment, Spain).

In 2013, the Spanish national economy continued to lose jobs as participants in social security lost 85,041 people compared to the end of 2012, reaching a total of 16,357,640 employed. However, this is the best figure since 2007, when the crisis began (SEPE: Public Service of Employment, Spain). In 2014, the Spanish economy recorded its first net job creation increase since the crisis. In the second quarter of 2014, unemployment fell by 310,400 people compared to the previous quarter. (SEPE: Public Service of Employment, Spain).

The IMF (International Monetary Fund) forecast for the Spanish economy in 2014 was for an increase of over 1.3%, a movement in the right direction but not enough to create a substantial number of jobs. In the first quarter of 2014, GDP actually grew by only 0.4%, and 0.6% in the second. (INE: National Institute of Statistics, Spain).

What are main indications that the Spanish economy is coming out of its recession?

1. A significant adjustment in GDP, from a deficit of 10% in 2007 to a surplus of 1.4% in 2013 (INE: National Institute of Statistics, Spain). This was not due to any dramatic or significant reduction of imports but rather a process of "internal devaluation," consisting of reduced labor costs. As a result, Spanish workforce labor is cheaper now than seven years ago.

2. Export volume grew by 19% since 2007. In 2013, its impact on GDP rose from 27% to 33% (INE: National Institute of Statistics, Spain). Spain sold more abroad, offsetting what it failed to sell within its territory.

3. Employment within the construction industry is now 6% of the labor force, down from 13% in 2013 (INE: National Institute of Statistics, Spain). This was inevitable since this sector of the economy had to downsize to adjust due to reduced demand.

4. The banking industry got out of the recapitalization program. This will improve the financing of the private sector in 2014, but businesses and families will continue to reduce debt and seek other sources of credit. In 2008, Spain had more than fifty financial institutions in operation, but the collapse of the “cajas de ahorro” has reduced the total number of banking institutions to under twenty¹, with much healthier financial situations.

And what have been the consequences of these developments in 2013?

1. Tourism: 2013 was a record year. Arrivals of foreign visitors were around sixty million (Ministry of Industry, Energy and Tourism of Spain), and domestic tourism has bottomed out with an expected trend towards growth.

2. Business: Spain recorded its first net creation of businesses in five years. 2013 was the first year in which more companies were created than closed (National Statistics Institute, Spain).

3. Investments: Between January and October of 2013, Spain received 45,000 million in new investments. The data is particularly positive with 208,219 million in outflows that occurred during the same period in 2012 (Directorate-General for Trade and Investment, Ministry of Trade, Ministry of Economy and Competitiveness of Spain).

4. Economic Growth: In the last quarter of 2013, GDP grew by 0.3%, again showing a positive sign and expectations for growth for 2014 are upward (National Statistics Institute, Spain)

Despite indications of a recovery from the recession, there remain important issues to be resolved, including public resentment over the feeling that they are being overtaxed.

- Nationally, the last two governments have increased the income tax, corporation tax, value-added taxation (VAT), and excise duties. Between 2012 and 2013 there were over thirty increases within the tax system. (National Statistics Institute, Spain)

- At the regional level, governments have adopted more than 120 tax increases.

- The taxation contribution of the average Spaniard is 20% higher than the rest of Europe. (National Statistics Institute, Spain)

- The average worker pays 8,667 euros a year to the Treasury (National Statistics Institute, Spain).

- Labour taxation deprives a worker of 42% of his salary, and social contributions are 35% more expensive than in the OECD countries. (National Statistics Institute, Spain)

- The underground economy has soared to 25%, placing Spain among the top ten OECD countries with the highest percentage of informal economies (National Statistics Institute, Spain).

What can we conclude from the analysis about the current Spanish situation? From a macroeconomic perspective, it appears that Spain has emerged from its economic crisis. However, there are doubts about the strength of the reforms already underway and uncertainty about the government's fiscal reforms still exist. The European Union, with its overall lower unemployment and higher economic indicators, has assisted Spain's recovery with trade within the Euro zone.

¹Estructura y evolución de las entidades de crédito bajo supervisión del Banco de España. Banco de España, Memoria de la supervisión bancaria en España, 2011.

The high number of unemployed gives caution to overstating Spain's economic recovery. However, the dramatic growth of the country's informal economy suggests that much of the unemployment has been absorbed in underground and undertaxed economic activities. At present, existence within the informal economy appears to be the only way of economic survival for many Spaniards.

In short, "Spain is back." The country is back on the path of economic growth, but the rate of recovery is not yet sufficient to resolve the pervasive damage left by the recession. Moreover, consumer confidence remains primarily low. However, overall macroeconomic trends have indicated steady improvement

In light of the country's economic recovery, foreign companies have an opportunity to invest in a country experiencing a new macroeconomic ascendancy. Spain's success depends on the consolidation of improving economic data and the ability to implement the recovery reforms mentioned above.

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